NOTICE OF A REGULAR SESSION OF
THE VINEYARD CITY COUNCIL MEETING
September 12, 2018 at 6:00 PM

Public Notice is hereby given that the Vineyard City Council will hold a regular session of the Vineyard City Council meeting on Wednesday, September 12, 2018, at 6:00 pm in the Vineyard City Hall, 125 South Main, Vineyard, Utah. The agenda will consist of the following:
(clicking on the blue wording will take you to the documents associated with the agenda item.)

AGENDA

6:00 PM REGULAR SESSION

Presiding Mayor Julie Fullmer
(Mayor Pro tem – Councilmember Tyce Flake – July to September)

1. **CALL TO ORDER**
   INVOCATION/INSPIRATIONAL THOUGHT/PLEDGE OF ALLEGIANCE

2. **OPEN SESSION –** Citizens' Comments *(15 minutes)*
   "**Open Session"** is defined as time set aside for citizens to express their views for items not on the agenda. Each speaker is limited to three minutes. Because of the need for proper public notice, immediate action **cannot** be taken in the Council Meeting. If action is necessary, the item will be listed on a future agenda, however, the Council may elect to discuss the item if it is an immediate matter of concern.

3. **MAYOR AND COUNCILMEMBERS' REPORTS/DISCLOSURES/RECUSALS**

4. **STAFF AND COMMISSION REPORTS** *(3 minutes each)*
   - City Manager/Finance Director – Jacob McHargue
   - Public Works Director/Engineer – Don Overson
   - City Attorney – David Church
   - Utah County Sheriff's Department – Sergeant Holden Rockwell
   - Community Development Director – Morgan Brim &
     Planning Commission Chair – Cristy Welsh
   - City Recorder – Pamela Spencer
   - Building Official – George Reid
   - Water/Parks Manager Sullivan Love - Timpanogos Special Service District – Board Member

5. DISCUSSION ITEMS

No items were submitted.

6. CONSENT ITEMS

a) Approval of the August 22, 2018 City Council Meeting Minutes

7. MAYOR'S APPOINTMENTS

No names were submitted.

8. BUSINESS ITEMS

8.1 PUBLIC HEARING – TEFRA Bond Hearing Resolution 2018-13

A public hearing will be held by the Vineyard City Council regarding the proposed issuance by the Arizona Industrial Development Authority of its revenue notes, bonds or other obligations in one or more series from time to time pursuant to a plan of financing bonds in an amount not to exceed $15,000,000. The public hearing is required by Section 147(f) of the Internal Revenue Code of 1986, as amended. The proceeds from the sale of the Bonds will be loaned to Three Twenty East Gammon Road, LLC (the "Borrower"), a Utah limited liability company, the sole member of which is the Franklin Schools Foundation, dba Franklin Discovery Academy, a Utah nonprofit corporation and an organization described in Section 501(c)(3) of the Code, and used to (a) finance the cost of the acquisition and construction of charter school facilities and the associated improvements thereon, consisting of approximately 45,000 square-feet of elementary school facilities located on an approximately 5.0 acre site at 320 E. Gammon Road in Vineyard, Utah (the "Facilities"), (b) fund certain reserves as may be required, (c) fund capitalized interest on the Bonds, if any, and (d) finance costs of issuance of the Bonds (collectively, the "Project"). The Facilities will be owned by the Borrower and will be leased to and operated by Franklin Discovery Academy – Vineyard, a Utah nonprofit corporation and an organization described in Section 501(c)(3) of the Code.
The mayor and City Council will act to approve this request by resolution.

8.2 DISCUSSION AND ACTION – Vineyard Shores Preliminary Plat *(15 minutes)*

The applicant, Edge Homes, is requesting preliminary plat approval for the Vineyard Shores. The subject property is located within the Town Center Lake Front Residential district. The subject property extends north from 400 North to just south of the Vineyard Connector and extends west from the Waters Edge subdivisions the Preserve and Villas to the edge of the existing Vineyard Road and Utah Lake. The applicant is proposing fifteen (15) Single-Family Lots, forty (40) Condo buildings and forty-five (45) Townhome buildings for a total of 685 residential units. The mayor and City Council will take appropriate action.

9. CLOSED SESSION

The Mayor and City Council pursuant to Utah Code 52-4-205 may vote to go into a closed session for the purpose of:

(a) discussion of the character, professional competence, or physical or mental health of an individual
(b) strategy sessions to discuss collective bargaining
(c) strategy sessions to discuss pending or reasonably imminent litigation
(d) strategy sessions to discuss the purchase, exchange, or lease of real property
(e) strategy sessions to discuss the sale of real property

10. ADJOURNMENT

This meeting may be held electronically to allow a councilmember to participate by teleconference.

The next regularly scheduled meeting is September 26, 2018.

The Public is invited to participate in all City Council meetings. In compliance with the Americans with Disabilities Act, individuals needing special accommodations during this meeting should notify the City Recorder at least 24 hours prior to the meeting by calling (801) 226-1929.

I the undersigned duly appointed Recorder for Vineyard, hereby certify that the foregoing notice and agenda was emailed to the Salt Lake Tribune, posted at the Vineyard City Hall, the Vineyard City Offices, the Vineyard website, the Utah Public Notice website, and delivered electronically to city staff and to each member of the Governing Body.

AGENDA NOTICING COMPLETED ON: September 10, 2018

CERTIFIED (NOTICED) BY: /s/ Pamela Spencer
PAMELA SPENCER CITY RECORDER

MINUTES OF THE VINEYARD
CITY COUNCIL MEETING
125 South Main Street, Vineyard, Utah
August 22, 2018 at 6:00 PM

Present	Absent
Mayor Julie Fullmer	
Councilmember John Earnest	
Councilmember Tyce Flake	
Councilmember Chris Judd	
Councilmember Nate Riley	

Staff Present: City Manager/Finance Director Jacob McHargue, Public Works Director/City Engineer Don Overson, Assistant City Engineer Chris Wilson, City Attorney David Church, Sergeant Holden Rockwell with the Utah County Sheriff's Department, Community Development Director Morgan Brim, City Planner Elizabeth Hart, Planning Commission Chair Cristy Welsh, City Recorder Pamela Spencer, Building Official George Reid, Plans Examiner Patricia Abdullah, Water/Parks Manager Sullivan Love, and Finance Intern Karuva Kaseke

Others Speaking: Brandon Watson with Edge Homes, Bronson Tatton and Nate Hutchinson with Flagship Homes, Mike Hutchings and Stewart Park with Anderson Geneva, residents Shawn Herring, Doug Drury, Thora Searle, Spencer Steed, Stan Jenne, Alma Faerber, Joseph Smith, Darren Smith, Cody Smith, Briana Glanzer, Andrew Stephenson, Catherine Bramble, James Noble, Philip Gillman, Bryce Brady, David Dunford, Clint Black, Camille Poppin, and David Lauret

6:01 PM REGULAR SESSION

Mayor Fullmer opened the meeting 6:01 PM. The Pledge of Allegiance and invocation were given by Councilmember Judd.

MAYOR'S APPOINTMENTS

2018-2019 Youth Council Executive Members.....7 Vacancies
Following the appointments, City Recorder Pamela Spencer will swear in any Youth Councilmembers in attendance.

Mayor Fullmer with the consent of the council appointed the following individuals to the Vineyard Youth Council Executive Committee:

- Youth Council Mayor – Rachel Golightly
- Youth Council City Manager – Joey Merrill
- Youth Council Recorder – Janelle Dadson
- Youth Council Service Committee Chair – Macy Lee
- Youth Council Activity Committee Chair – Zoey Lee
- Youth Council Beautification Committee Chair – William Welsh
- Youth Council Election Committee Chair – Holly Huntington

Ms. Spencer administered the oath of office to those Youth Councilmembers who were present.

WORK SESSION

3.1 Vineyard Shores Discussion

The mayor and City Council will work with Edge Homes to discuss the upcoming Vineyard Shores Development Plan. The subject property is located within the Town Center Lake Front Residential district. The subject property extends north from 400 North to just south of the Vineyard Connector and extends west from the Waters Edge subdivisions The Preserve and The Villas to the edge of the existing Vineyard Road and Utah Lake. The applicant is proposing fifteen (15) Single-Family lots, forty-one (41) Condo buildings and fifty-five (55) Townhome buildings for a total of 695 residential units.

Mayor Fullmer turned the time over to Community Development Director Morgan Brim.

Mr. Brim explained the city was in the process of updating the General Plan. He said the Town Center was intended to be a place where people would live, recreate, and shop. He stated that it was meant to focus on transit with a FrontRunner station. The Town Center was also intended to have a mix of uses and be a walkable community. He added that there would be a promenade that would connect from the station to the lake shore. He added that there were five main blocks (districts) inside the Town Center area. He explained that the applicant was proposing to develop the Lake Front Residential District. He said that this district was made to be exclusively a residential product with a mix of residential uses. The focus was to connect the neighborhood to the trail system and the lake. He further explained the intent of the district. The original plan for the Town Center consisted of 471 acres. He also explained the process that the city went through to create the Town Center Ordinance. He noted that the ordinance was designed to be a form-based code with a focus on architecture and how the development should come together.

Mr. Brim explained that there was a four-step process that the applicant would need to go through and that the applicant was on the first step which was the preliminary plat and general concept plan. He said the preliminary plat would help staff when they go through the site plan to know the arrangement of buildings, how many units there would be, how the roads would be laid out, parking, etc. He explained that the Planning Commission would be approving the architecture, orientation of the buildings, the materials being used, landscaping, utilities, and parking to ensure the development meets the code. He stated that they would also work with the developer on their traffic impact analysis. He said that the next step would be to look at the final plat and once it was approved there would be building permits and site permits. He commented that the Planning Commission had reviewed the plat and had recommended approval with specific concerns noted. He gave a general summary of the Planning Commission concerns:

- Traffic into the project on Loop Road and if there would be enough parking with the amenities the developer would like to include for lake use.
- Traffic speed – residential neighborhood, stop signs, etc., for speed control.
- Visibility to Utah Lake – the recommendation was to remove a strip of town homes that were adjacent to the club house, which the application had done.
- Concern with private and public parking. This would be worked out on the site plan.
- Pedestrian access through the development. Have connections to the lake at appropriate intervals.
- Connection of 300 West through the lake promenade area (north side)
- Getting documentation from the state regarding the lake side improvements.

Mr. Brim presented the table of uses from the Town Center Ordinance for the Lake Front Residential District. He said that the application was proposing small lot single family, multi-family and townhome uses, which were permitted uses.

Mr. Brim reviewed the preliminary plat. Highlights were:

- 51 acres
- 13.38 acres devoted to open space within the development
- 15 single family residential lots on the south side of the property
- 400 condo units
- 270 townhomes
- Total of 685, which equaled about 13.41 units per acre.
- 130 public parking spaces with additional room for 80 spaces on the lake side not reflected on the plat.
- 300 guest stalls
- Overall there were just over 2 stalls per unit, which would be refined during the site plan approval process.

Mr. Brim showed the preliminary site plan, which was not up for approval at this time. He pointed out the amenities that were on the west side of the project, the trails, etc.

Mr. Overson referenced a city map where the sewer, water, power lines, and roads were or would be located. He stated that there was enough capacity in the sewer system and adequate water lines for this project. There were three (3) discharge points for the storm water to get it to the lake. He explained that according to a transportation study that had been done, the typical maximum capacity for a two-lane road was 20,000 trips per day. He said that the road would be a three-lane road which would follow the power corridor and connect to 400 North, Loop Road (600 North), and 1100 North at the Vineyard Connector. He felt that with the three (3) connections that the capacity of the road would be adequately sized for the project. He also felt that they had met the intent of the Town Center plan and would meet the requirements of the development.

Councilmember Flake commented that the Vineyard Connector was only finished to Main Street and for an unknown period of time would be a dead-end road. Mr. Overson explained that staff was having the applicant finish the existing lake shore road and that the city would improve it once the Vineyard Connector had been extended to 1100 North.

Councilmember Earnest asked if there were concerns about what the development would be putting into the lake. Mr. Overson explained that there were storm water requirements that would clean it up to a certain level before it could be dumped into the lake. He added that the sewage would be going to the Timpanogos Special Service District plant.

Councilmember Earnest asked why they could not bury the powerlines. Mr. Overson replied that the transmission lines were too big to move.

Brandon Watson with Edge Homes gave a brief explanation about how they found this property. He stated that they had spent hundreds of hours and designed multiple site plans trying to put this project together. He said that they had originally proposed over 1,000 units and had scaled it back to come up with what they felt was the most responsible layout. He said that staff had explained how the density should work with single family homes to the south. He noted that they had taken out the building as requested by the Planning Commission to open up the view to the lake.

Mr. Watson explained that the development was surrounded by the Waters Edge development to the east and south and Utah Lake on the west. He explained that they knew that the powerlines

would be a concern because they divided the project in half. He said that staff had recommended that the roadway be under the powerlines. One unique thing about the site was Utah Lake and being able to provide open space that the whole community could use. He explained that they had met with Eric Ellis, the Executive Director of the Utah Lake Commission, and Ben Stireman with Utah Forestry, Fire and State Lands, who gave them recommendations for use and cleanup of the shore line. He said that this was outside of the city's open space requirements.

Mr. Watson explained that they were providing one guest parking spot for every two units. The condominiums would have a single car garage and a driveway and the townhomes would have a two-car garage and a driveway. He added that they would also have two-to-one guest parking. He explained Edge Homes' rental policy. He said that they cap their rental units at 30 percent and that they require written disclosure of owner-occupied and rental units. He noted that the Covenants Conditions and Restrictions (CC&Rs) addressed the issue if a homeowner desired to change the use, that they must go through the Home Owners' Association (HOA). He said that this was to mitigate any over renting in the area. Councilmember Judd asked what enforcement was in place. Mr. Watson replied that the HOA did a periodic audit to verify the use. Councilmember Judd asked what percentage The Preserve subdivision was at in regards to rentals. Mr. Watson replied that 30 percent was the cap on condominiums but did not know about the townhomes.

Councilmember Judd stated that the Lake Front Residential definition for building forms was to include a mixture. He asked it they would define only 2 percent single family as a mixture. Mr. Watson replied that they originally had more units but after meeting with staff to determine what was desired and how to transition from single family and what developments would come from the rest of the Town Center, they felt that this was the location to have some single family and that 2 percent was a good transition with the surrounding uses. Councilmember Judd asked why they were mixing condos and townhomes if they were trying to provide a buffer. Mr. Watson said that they had transitioned from south to north but were trying to be mindful to those developments to the east that were townhomes. He explained that the current environment of Vineyard Road at the lake was a safety concern and that more eyes on the beach front was needed. He said that they had multiple elevations of the condos and townhomes to make them as unique as possible.

Mayor Fullmer opened the work session for public comments.

Resident Shawn Herring living in the Ashley Acres subdivision agreed that this was a unique location if they utilized it the way it should be utilized. He felt it was not unique if they were adding almost 700 units and only two percent were single-family lots. He read the Town Center code. He felt that the proposed development was not the mixed use and density defined in the code for that zone. He said the traffic would be a major concern. He stated that he did not agree with the sewer and water capacity. Mayor Fullmer asked Mr. Herring to clarify what he did not agree with in the ordinance. Mr. Herring replied that the question was what were single family and mansion homes and felt that it did not fit the "Live, Work, Play" in the ordinance.

Resident Doug Drury living in The Lakes at Sleepy Ridge subdivision felt that the mix of homes did not work with the ordinance. He asked if city planning had wanted 1,000 units in the development. He commented that he was against high density and felt that they could come up with alternatives. He expressed concern that the traffic was already unmanageable. He felt that they should keep their campaign promises and also get consensus from everyone that lived in that area.

Resident Thora Searle living in The Garden subdivision expressed her support of the project.

Resident Spencer Steed living in The Meadows subdivision stated that he had relocated from Woods Cross and wanted to know what research had been done on what density the city could handle. He said that Woods Cross had a plan to transition from low to high density and then the residents had to deal with tremendous crime and an increase in low-cost housing, dropping their property values. He expressed concern about the current density in Vineyard and the plan to approve more.

Resident Stan Jenne living in The Shores subdivision thanked Edge Homes and staff for the work they had done. He expressed concerns with the parking for residents, which was less than two stalls per unit. He stated that students tended to be a large portion of the rental group and would need one to two parking stalls per bedroom. He said that this was discussed during the Planning Commission meeting and the word "could" was used frequently. He said that it was mentioned that overnight parking could be regulated. He asked that the word "could" be replaced with "will." He expressed concern that there was no public transportation, so people would be using cars. He felt that most people were not willing to give up their cars. He reiterated that he was happy with the single-family transition but was concerned that mansions were not included and wondered where they would put them. He stated that they did not know when the Vineyard Connector would be completed and that everyone would be driving through The Preserve subdivision or using 400 North. He felt that it would be a traffic nightmare when the current developments were finished. He felt that Main Street would not be able to handle the load. He expressed concern with the high density and that here would be a time that people did not want to live in the condos or townhomes and then they would degrade and not be good properties. He said that the waterfront property was not owned by the development and was concerned with who would be maintaining it.

Resident Alma Faerber living in the Parkside subdivision asked if just because it met code did we have to do it. He referred to the Herriman project where the Salt Lake County Mayor vetoed the project. He stated that they needed to come up with a solution to the current traffic issues. He felt that if they did go forward with the project then the Vineyard Connector needed to be expanded to three or four lanes on each side.

Resident Joseph Smith living in The Lakes at Sleepy Ridge subdivision expressed his concern with the mix of the project. He felt that it was the council's duty to do what was best for the community. He explained why he was attracted to the Sleepy Ridge subdivision. He felt the Vineyard Shores development along the lake front looked like row homes. He also expressed concerned with the parking. He asked what the Ordinances were that permitted who and how many people could live in that development. He expressed concern that the residents would take up all of the 130 public parking spaces. He asked if they would have the same problem on the lake front as they had on Geneva Road where they had to install No Parking signs to keep residents from parking on the road. He expressed concern about the density and felt that there should be a greater mix of home types with half acre lots and mansion homes.

Resident Darren Smith living in The Shores subdivision asked to see the how the 26 percent open space fit the zoning requirements. He said that in the introductory statement of the ordinance it stated that districts were composed of blocks making it easy for pedestrians, bikers, and automobiles. He felt that with the density proposed and the number of people that would be in the area, it would be difficult to get around and felt it would not be "easy." He asked how mobility would be easy in that area especially with transportation. He mentioned the traffic issues with the school in that area and that Waters Edge was not built out yet. He noted that most of the roads would be falling under the classification of side streets and asked how they would be able to manage traffic with the increased density.

Resident Cody Smith living in The Elms subdivision commented that he was anxious to see that they have the traffic concern resolved. He felt that they did not have the infrastructure to support this type of development and until the remainder of the infrastructure was in place he was concerned for the safety of the residents. He expressed concern with the parking issues and that the intent of the mixed use had not been met.

Resident Briana Glanzer living in the Ashley Acres subdivision asked what city ordinances regulated how many people there were in the city and what safety/emergency services were required for that number of people. She asked when the city was required to have their own emergency services.

Resident Andrew Stephenson living in the Cascade subdivision asked what the Ordinance stated about the capacity of elementary schools and their influx of students.

Catherine Bramble living in The Shores subdivision commented that it appeared that the reason the ordinance had been created in a flexible way was so that the city did not have to be held hostage by a developer that came in and stated that they had meet certain requirements so you had to approve the project. She felt that the ordinance was open in talking about ease of transportation, flexibility with parking, etc., and that the City Council could require that the developer go through the ordinance and explain how each of the requirements had been met. She felt that until this had been done the citizens would be concerned about the things that the ordinance addressed and she requested that this be done by the developer and produced for citizens and City Council to inspect.

Nate Hutchinson with Flagship Homes stated that the property had been zoned with more density before the revision in 2015. He said that they had larger lots near this property and wanted to see lower density in that area. He stated that he did not like how the code was written, however as a master developer who had a large financial interest in the city, he wanted the city to do well, and was pleased with the product that Edge Homes had submitted. He expressed concern that if the project was not approved then another developer would come in with more density.

Resident James Noble living in The Lakes at Sleepy Ridge subdivision asked how the Ordinance dealt with the traffic and if the city could make it so that the building permits were put in place to collect money to support the infrastructure, which should include the widening of the roads and completion of the Vineyard Collector. He felt that the developer should be held accountable for the traffic.

Mayor Fullmer closed the public session.

Mr. Brim responded to the resident's concerns. He explained that some of the concerns would be addressed during the site plan approval process.

Comment: The project only had residential. Mr. Brim responded that there were 5 districts and this district was residential only. He noted that commercial had been moved to other districts.

Comment: Turning left off of 300 West onto 400 North and additional traffic next to the school. Mr. Brim explained that the city had completed two traffic studies during the Town Center design project and that the applicant would be required to do a specific traffic analysis of the development's impacts and any improvements needed such as signal lights.

Comment: Staff wanted 1,000 units. Mr. Brim responded that the request came from the developer, not staff. He mentioned that the code did allow for substantial density. He said that staff had worked with the applicant to bring down the density, include the road on the power corridor, and adding single-family lots. He said the code called for a mix of uses but did not give specific percentages of each use.

Comment: Not enough access points. Mr. Brim responded that there would be three access points: The lake road (going north) extension across the promenade, Loop Road, and 300 West.

Comment: People not using the Lake. Mr. Brim felt that most people moved to Vineyard because of the lake. He said that there was a lot of work being done to clean up and dredge the lake.

Comment: Researching the city code regarding the density. Mr. Brim responded that it was addressed in the 2004 General Plan. The amount for the land use study that infrastructure could handle was 35,000 to 40,000 residents. He mentioned that in the new General Plan update they would be looking at population. He said that most of the city was already zoned and once it was zoned people had property rights, which makes it difficult to cap the number of units. He said that staff would work with developers to find win-win solutions.

Comment: 1300 Parking spaces not being enough. Mr. Brim responded that there were different parking categories. Private Parking, which is onsite, such as garages and driveways. He explained that there were guest and designated private parking spaces He said that there was a total of about 1,600 to 1,700 spaces on the private side. He added that there were also public parking spaces on the streets. He said that they could be regulated by the council. He suggested that they could limit those public spaces such as no overnight parking so that it would be geared for tourist use.

Comment: No public transportation Mr. Brim responded that the city was currently working with UDOT and UTA on the FrontRunner station, which could be open within 18 to 24 months.

Comments: Density. Mr. Brim responded that he would like to speak individually with the residents.

Comments on traffic issues. Mayor Fullmer felt this issue had been addressed with the two traffic studies.

Comment: Introduction to the code with the "ease of use." Mr. Brim responded that staff agreed and that they would be discussing the access points with the developer during the site plan approval process. He stated that the code required that every quarter mile there be a pedestrian access point to the lake. The plan also showed improvement of the trail system on the lake. The developer was also required to provide stop signs for pedestrians to cross 300 West.

Comment: Safety in regards to density. Mr. Brim responded that, from what staff had studied, safety in regards to high density was more of a case of the quality of the density. He explained that there were building codes and standard requirements that required a high-end material and architecture.

Comment: How the ordinance regulates the number of people in the city. Mr. Brim responded that it was based off of zoning and the uses allowed in the Town Center. He noted that there was no cap on residential in the Town Center.

Comment: Emergency Services. Mr. McHargue responded that the city was currently contracting with the Utah County Sheriff's department and working closely with them to make sure they were comfortable with the number of officers that the city had per 1,000 residents. He explained that the city was contracting with Orem City for fire services. He said that the agreement with Orem specified that at 5,500 Equivalent Residential Units (ERU) the city would have to come up with a plan in three years to have a city owned fire department or build a fire station in the city that Orem would man.

Comment: Schools. Mr. McHargue responded that the Alpine School District had purchased a property just north of the 18-acre park for another elementary school and they were working with the city on a third elementary school site.

Comment: Being held hostage by the developer. Mr. Brim responded that the developers would have to meet the code line by line. He said that they would do this during the site plan process.

Comment: How the city deals with traffic in the code. Mr. Brim responded that the Town Center was a forward-looking code, which included street types. He said that this was done so that a developer could not under build their roads. He explained that there was 100 to 120 feet of right of way, and included active transportation for bike lanes, sidewalks, trees, etc.

Comment: Salt Lake County large development. City Attorney David Church explained that Salt Lake County had passed an ordinance that would enable the development in the county. He said that this was new legislation and the mayor had the right to veto it. He further explained that the Town Center Ordinance was passed in 2015 and that the Edge application was an application to for an existing ordinance. He added that the mayor did not have a veto right. As to discretion on approval or denial, according to state law, if a subdivision application met the ordinance, the city must approve it. If there was an ambiguity in the land use ordinance they were to be interpreted to be in favor the private property owner. He said that the city had an existing Town Center Ordinance and this was an application to apply that ordinance to a piece of ground and under state laws if the applicant can show that the application complies with the ordinance the city has to approve it. He suggested that the time to get involved was during the ordinance process. He said that from a legal standpoint it was too late to change the code for this development.

Comment: Fees and costs and who pays for the roads. Mr. Church responded that there were two kinds of roads in the developments: Project roads, which the developer created the need for and paid for, and system roads which benefited more than the project and which the developer paid part of. He mentioned that the city was also allowed to charge an impact fee to contribute to the system, which was charged on every house to help pay for the system roads.

Comments: Number of people that can live in a home. Mr. Church replied that the city had an ordinance that defined family to be no more than four unrelated adults. He said that the problem was being able to enforce it. He said that was how the city could regulate the population, in a sense. The city did not regulate how many children people could have, but could have regulations defining what a family was.

Comment: No mansion homes included. Mr. Brim responded that the mansion building type mentioned in the Town Center code was for multi-family use. It was a large single-family home from the outside but was divided into multiple units on the inside.

Councilmember Judd expressed concerns with the mixture of housing types, parking, transportation, traffic corridors, and view corridors. He said that it was up to the City Council and staff to make sure they had given the project sufficient overview to ensure that it met the

requirements. He felt that they could have done a better job of buffering, moving townhomes to the south end, moving the higher density condos to the north end, and adding more single-family homes to meet the definition of a mixture.

Councilmember Flake echoed Councilmember Judd's thoughts. He said that he served, as a citizen, on the committee that designed the Town Center, the intent was to mitigate the explosion of apartments. He said that in the end the ordinance did not reflect it. He expressed concern with the buffering. Currently along the lake the average lot was half an acre and now this development was not even close to it. He expressed concern with what was projected, but was impressed with the flexibility from the developer. He agreed that every box needed to be checked twice.

Councilmember Riley echoed Councilmembers Judd and Flakes' concerns. He expressed concern that they were going to wait until the site plan review to address the issues. He commented that he had been a part of the town when population was in the low hundreds and the council was able to do things very differently. He said that they did not usually wait until the site plan to hammer out the specifics. He felt that they needed, with the developer's cooperation, to find a way to address these concerns before the site plan stage.

Mayor Fullmer agreed with council's comments. She said that they needed to refine those concerns to make sure they were following the code. She suggested that residents reach out to staff.

Councilmember Judd asked what the process would be to make changes to the code if there were things in the zoning districts that were not what they thought they were. Mr. Church replied that they had to follow the process to amend it just like any other zoning ordinance. He said that they would have to make a proposal to the Planning Commission, which would make a recommendation, after a public hearing, to the City Council. A notice was required to both landowners and citizens so they could participate in the process. He reminded the council that they made two types of decisions, legislative (adopt the code) and administrative (apply the code). He said that a request to approve a preliminary plat was an administrative decision. He explained that in large cities a preliminary plat would never go in front of the City Council. He said that they should not confuse the two roles.

Mayor Fullmer mentioned that staff was going through all of the zoning code and the General Plan to make sure that the city got what they wanted out of the zoning codes. She said that if the development did not meet what they thought it should, now was the time make sure they were following the ordinance.

Mayor Fullmer closed the work session.

OPEN SESSION – Citizens' Comments
Postponed to later in the meeting.

MAYOR AND COUNCILMEMBERS' REPORTS/DISCLOSURES/RECUSALS
No reports were given.

STAFF AND COMMISSION REPORTS
No reports were given.

OPEN SESSION

Mayor Fullmer opened the public session.

Resident Philip Gillman living in the Vineyard Park Place subdivision commented on Edge Homes' capping the rental units at 30 percent and the city's definition of family. Mr. Church explained that the city was constrained by the State and Federal Constitution which did not allow the cities to pass an ordinance stating that home owners could not rent their property. Mr. Gillman asked how the city could enforce the 30 percent rentals and the number of people living in a home. He asked what would happen if the development exceeded the 30 percent. Mr. Church replied that the city was attempting to be more aggressive with the code enforcement. He explained that it was difficult to find out how many people lived in the homes. Mr. Gillman asked what the ramifications were. Mr. Church replied that they could force the owners to evict people. Councilmember Judd stated that the city could not enforce the 30 percent, only the definition of a family. Mr. Gillman wanted to ensure that the 30 percent would be enforced. Councilmember Judd and Mr. Church both stated that the city could not enforce the 30 percent, that it was an HOA issue.

Resident Bryce Brady living in The Elms subdivision commented about the density on the Clegg farm. He stated that the residents did not want high density and asked the council to keep that in mind when the time came to rezone the Clegg farm. Mayor Fullmer explained that the Clegg farm was currently zoned for agricultural use and a developer would have to request a zoning change to build more than one home on 20 acres.

Mike Hutchings with Anderson Geneva pointed out, as one of the land owners of the property in question, that in 2015 he was involved with upgrading the Town Center area. He said that in the process of rezoning the property, densities came down substantially. He felt that good compromises were made and that the code that was now in force was much better than the previous code.

Resident Joseph Smith commented that Vineyard's access to the freeway was through another city. He said that Center Street in Orem had a bottle neck at the railroad. He asked if Vineyard had any say in helping to resolve that issue. Mr. Church replied that Vineyard was actively involved with removing the spur off of Geneva road, which would enable the state and Orem to widen Center Street in Orem. He explained that the city was collecting transportation impact fees to help get the overpass built on Center Street in Vineyard. Mr. Smith felt that it was a huge concern with adding population and having adequate access. He expressed concern with UVU owning property in Vineyard and impacting transportation needs.

Mr. Smith commented that he had tried to locate the agenda on the city website and saw that the city council meeting had been cancelled. He felt that the City Councilmembers could do a better job of communicating on social media sites. Ms. Spencer replied that she did post the agenda notice on Facebook with a link to the website. She added that agendas could be found at the bottom of the website. She noted that it was the July 24 meeting that had been cancelled. She recommended that residents sign up through the website to receive a copy of the agenda.

Resident David Dunford living in The Maples subdivision stated that he wanted the council to make sure that everyone was following the law. He felt that there were things the city could do based on sewage, etc. He said that his house backs Main Street and with all of the townhomes and condos he sees people speeding down the road. He mentioned that he saw a crossing guard almost get hit. He asked what could be done to control the traffic. He said that there were a lot of college students living in the Concord apartments when he lived there and he was told there would not be any college students living there. He felt that the Edge Homes developments were

not going to follow the 30 percent. He suggested that the council makes sure that the city was doing everything they could to enforce the law by evicting people.

Sergeant Rockwell stated that staff had been made aware of a car not stopping for a crossing guard and they were looking into it. He said that the Sheriff's department had been granted money by the state to allow overtime for crossing safety. He asked the residents to let the Sheriff's department know about speeding concerns. Mayor Fullmer said that the city was trying to be more proactive with code enforcement. She asked that if residents see things to please report them so they can build a history and take care of it.

Resident Thora Searle mentioned that people were running stop signs. She asked about the survey about parking in the subdivisions. She asked about the Airbnb code. Mayor Fullmer replied that there would be a work session on the Airbnbs soon. She explained that they were reviewing the parking issues and working with the residents in each area to make the best decision and do it right the first time. She said as for the stop signs, the city was putting out a social media campaign to talk to people about distracted driving and also sending officers out there.

Mr. Brim explained that they were researching the Airbnb issue. He said that staff had worked with The Alloy and Concord apartment complexes and they have since added additional parking. He said that staff was working with Tucker Row and The Locks to add an additional 50 spaces. He added that he was meeting with Edge Homes tomorrow to see if there were ways to increase parking.

Resident Clint Black in The Maples subdivision said that traffic was a concern and he could see how it could affect the development and those surrounding it. He mentioned that Provo had parking issues but approved a 1,000-bed complex with only 600 parking spaces, so students were parking in the neighborhoods. He said that he hoped that the amenities in the Edge Homes development did not redirect staff from the main issues. He asked how many parking spaces there would be. Mr. Brim replied that on the private side there would be 1,700 spaces and on the public side there would be over 200 parking spaces.

Resident Camille Poppin living in The Garden subdivision asked if it was okay if there were four unrelated people to living in a unit that was owner occupied. Mr. Brim reviewed the definition of a family. Ms. Poppin asked if someone would be in the 30 percent if they purchased a condo, which they lived in, and then rented out the remaining bedrooms. Mr. Church replied that owner occupied was different from a rental unit. He said that the 30 percent was the Edge Homes requirement not, the state's or city's requirement.

Ms. Poppin expressed concern with walking with her children to the park and having people speeding down Holdaway Road. She felt that the city was already having this problem and adding a lot more people was only going to make it worse. She said that they needed to solve the problem before they started the project.

Resident David Lauret living on Holdaway Road felt that they had learned a lot tonight about what could and could not be done. He said that one thing they could do was to work towards changing ordinances to be more favorable to what the residents would like to have. He asked for information on how citizens could be involved in helping to make those changes. Mayor Fullmer replied that they would posting options for how residents could to be involved. She recommended that everyone get on the Vineyard Facebook site, look on the website, and read the monthly newsletter. She suggested that residents could also email staff and council with any questions they had.

Mayor Fullmer closed the public session.

DISCUSSION ITEM

7.1 Waters Edge Parks – Bronson Tatton with Flagship Homes would like feedback from the council on the 6-acre park restrooms and the design of the 3-acre park.

Mayor Fullmer turned the time over to Bronson Tatton with Flagship Homes.

Mr. Tatton reviewed the amenities for the six-acre park located at The Loop Road and Main Street. He stated that the site plan had been approved before the pond was installed.

Amenities:

- Several trails that entered that park from Main Street and the surrounding subdivisions
- An 80-stall shared parking lot between the park and the club house
- A pond
- A pump house that irrigates all of the public space in the Waters Edge development.
- A play area – changed locations due to utility conflicts. The play area was about 39,00 square feet, which would include play pieces from Berliner.

Mr. Tatton explained how the play equipment would work. He said that they would be powder coating the metal slide to keep it from being too hot. There was a discussion about the coating. Councilmember Riley recommended that they include shade over the slide. Other items in the play area were: a disk swing, a disk spinner, and an Eddie.

- Medium sized pavilion

Mayor Fullmer asked about the restrooms. Mr. Tatton said that they had discussed it when the pump house was built and it was decided that they did not need one. He suggested that they could put a restroom near the Loop Road.

Councilmember Judd asked about the earth domes and the metal edging. Mr. Tatton explained that metal edging was to separate the two different types of grass. Councilmember Judd expressed concern with children getting hurt if the metal edge were to stick out above the grass. Mr. Tatton replied that the metal edging was also used in the Grove Park. Councilmember Flake mentioned that someone had already been hurt. Mr. Tatton recommended ongoing maintenance. Councilmember Judd asked why they used metal edging. Mr. Tatton replied that it was for durability. Councilmember Earnest asked why they were using different grasses. Mr. Tatton replied that there had been a desire to reduce the amount of irrigation water required, so this made it more functional. He added that it was also because of aesthetics. Mr. Brim explained that the parks would be going to Planning Commission for site plan approval and he wanted to get comments from the City Council before then. Councilmember Flake noted that the tree plan was a disaster. Mr. Tatton suggested that they discuss it later.

Councilmember Earnest asked what the pond represented for residents. Mr. Tatton replied that it was canal/irrigation water and no one should get in it.

Mayor Fullmer asked Mr. McHargue for an update on the fencing. Mr. McHargue said that staff look at the discussions from previous meetings. He explained that when they talked about it on a staff level they thought it would not break the budget. He said that they had not anticipated all of

the peat moss they found, which broke the budget. He said if council wanted a fence around the pond they would need additional funds. Councilmember Riley asked if there was a council requirement to install a fence. Mr. McHargue replied that council had asked staff to look into to it and staff came back with a budget of $30,000 to install a fence. He remarked that there was no decision made to install a fence. Mayor Fullmer suggested that they review the studies and then revisit this issue and make a final decision.

Mr. Tatton stated that with any type of barrier installed around the pond, if a child wanted to get in the pond, they would, and then the parents would have to climb the barrier to get to the child. Councilmember Judd felt that to keep people out of the pond they needed to install a chain link fence with barbed wire around the top. He said it would be for safety and not looks. Mayor Fullmer felt that reviewing the studies would show whether or not a fence would discourage children from entering that area. She said right now it was just speculation.

Mr. Hutchinson commented that they wanted to complete the 6-acre park this year. He asked council to give any changes back to them as soon as possible. Mr. Brim mentioned that Planning Commission would be reviewing the site plan on September 19.

Chair Welsh expressed concerns about the location of the play ground and the bathroom. She felt that it would be highly used and was concerned for the residents that backed the playground. There was a discussion about where to locate the park. Mr. Tatton suggested that this play ground would not be as big of a draw as the Vineyard Grove Park.

Councilmember Judd asked about how the shared parking lot was going to work. Mr. Tatton replied that the 6-acre park was classified as a neighborhood park and was meant for people who would be walking and using the club house. He added that there were not as many activities as the Vineyard Grove Park. Councilmember Judd asked if the HOA could restrict the parking to just the club house use. Mr. Tatton responded that the land would be owned by the city and would need to have a shared use agreement between the city and the HOA. Mr. Church explained that the city would need to have an agreement with the HOA to allow them to use the parking and share the maintenance costs.

Mr. Church suggested that they could grass the detention pond and install play equipment.

Mr. Brim suggested that they name the parks at the same time they approve the site plans. There was a discussion about the park naming.

Mr. Tatton reviewed the amenities for the three-acre park located at the west end of 400 North. He explained where the park would be located. He mentioned that access to the park would be from 300 West and 400 North.

Amenities

- 67 parking stalls
- Beach trail for regional use
- Public use of restrooms and drinking fountains
- Large pavilion
- Sand volleyball court
- Play area
- Open lawn area
- Amphitheater
- Beach access – Mr. Tatton explained that they were working on a permit to build the trial. He mentioned that the city would have to be the applicant for the permit.

Mr. Tatton reviewed the play equipment:

- 8 ½-meter slide tower to capture the history of the flume slide. Mr. Tatton explained that there was taller slide but it would cost a lot more. The 8 ½-meter slide would cost around $130,000 and the 23-meter slide would cost around $1.2 million. There was a discussion about the slide and play equipment. Councilmember Earnest asked how they would monitor the slide use. Mr. Tatton replied that it would be self-contained and recommended that the parents watch their children.
- Unique sand and water play element. Mr. Tatton explained that this was good for child development. He said that the water source would be manually pumped and funneled to the play area. He said that sand could be included for build things.
- Stepping path
- Spinning dome
- Possible swings
- Amphitheater – because of the significant elevation change, terracing of the amphitheater would help with storm and land drain water that runs off of the park.

Mr. Tatton suggested that the city could use the amphitheater for entertainment.

Councilmember Judd asked how big the amphitheater would be. Mr. Tatton replied that he did not know at this time. Councilmember Judd asked about occupancy. Mr. Reid asked about the need to have an event permit and the capacity of the restrooms. Mr. Tatton replied that the park would be several feet above the lake level and go down. Mayor Fullmer asked about the sound level. Mr. Tatton replied that the amphitheater would not be big enough for large events.

Mayor Fullmer asked about accessibility for children with special needs. Mr. Tatton replied that everything they had planned would be accessible.

Mr. Tatton mentioned that there was a large Chinese Elm Tree in the park area. Mr. Flake explained that it was a landmark tree and just needed to be cleaned up.

Mr. Tatton explained the sand volleyball courts. Councilmember Earnest asked if they had looked at putting in nicer nets and lines. Mr. Tatton replied that they would be installing the nicer nets and court lines.

Councilmember Riley commented that in an earlier master plan discussion there was the idea of putting a large amphitheater farther north in an area where they would have a lot of different uses. He said that he would still like to consider it. Stewart Park with Anderson Geneva explained that it was to be a medium-sized amphitheater and that they had been working with a consultant. He mentioned that it would allow for as single offload spot. He mentioned that this was only a concept and that they been approached by other people that offered different options. Councilmember Riley liked the terracing but suggested that they not include the plat form and that they build the amphitheater farther north. Mr. Hutchinson suggested that this would be for small gatherings. He stated that they had to terrace it anyway because of the slope. He felt it was an easy way to get use out of the slope. Mr. Brim suggested that the promenade would be a good spot for the amphitheater.

Mr. Brim mentioned that there would be bike repair stations in the parks.

CONSENT ITEMS

a) Approval of the August 8, 2018 City Council Meeting Minutes
b) Final Plat – Edgewater Phase 14
c) UTA License Agreement
d) Purchases – Building Department vehicle

Mayor Fullmer called for a motion.

Motion: COUNCILMEMBER JUDD MOVED TO APPROVE CONSENT ITEMS A THROUGH D. COUNCILMEMBER FLAKE SECONDED THE MOTION. MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

BUSINESS ITEMS

9.1 DISCUSSION AND ACTION – Amending the Municipal Code Chapter 11 Building Standards Ordinance 2018-10

Patricia Abdullah will present an amendment to the Building Standards. The mayor and City Council may act to approve (or deny) this request by ordinance.

Mayor Fullmer turned the time over to Plans Examiner Patricia Abdullah.

Ms. Abdullah explained that this item was an amendment to Title 11 Building Standards in the Municipal Code. She stated that most of the changes were administrative in nature. She said that staff was proposing a new section for construction mitigation. She explained that this would allow staff to use the code enforcement for sites that would need additional mitigation measures.

Councilmember Judd asked if staff felt that they could enforce these changes. Ms. Abdullah replied that this new code would give them the ability to enforce the standards using the Administrative Code Enforcement (ACE) code and charge fines.

Motion: COUNCILMEMBER FLAKE MOVED TO ADOPT THE TITLE 11 BUILDING STANDARDS ORDINANCE 2018-10. COUNCILMEMBER EARNEST SECONDED THE MOTION. ROLL CALL WENT AS FOLLOWS: MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

9.2 PUBLIC HEARING – City Boundary Adjustment; Annexation Plat (Ordinance 2018-11) The city of Vineyard requests approval of Ordinance 2018-11 amending the common boundary with Lindon City through approval of an Annexation Plat titled Boat Harbor Addition. The boundary area to be adjusted from Lindon to Vineyard includes a nine-acre parcel at approximately 2100 W. 600 S. and a portion of Lindon's 600 South roadway (Vineyard's 1600 N) between the UTA commuter rail line and the Lindon Marina. The properties that are within the boundary adjustment area will automatically be annexed by the City of Vineyard and by any local service districts providing public services within the City of Vineyard including utility services, fire protection, paramedic and law enforcement services. The mayor and City Council may act to approve (or deny) this request by ordinance.

Mayor Fullmer called for a motion to open the public hearing.

Motion: COUNCILMEMBER RILEY MOVED TO OPEN THE PUBLIC HEARING AT 9:01 PM. COUNCILMEMBER FLAKE SECONDED THE MOTION. MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

Mayor Fullmer called for public comments. Hearing none, she called for a motion to close the public hearing.

Motion: COUNCILMEMBER FLAKE MOVED TO CLOSE THE PUBLIC HEARING AT 9:01 PM. COUNCILMEMBER EARNEST SECONDED THE MOTION. MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

Mayor Fullmer asked Mr. McHargue to give a brief overview of the boundary adjustment.

Mr. McHargue explained that the city had been looking to purchase land for a Public Works facility. He stated that Lindon had land for sale and the city made an offer on it. He said that as a contingency on the land Vineyard requested that the land be annexed into Vineyard. He added that it would keep the same zoning that Lindon had. He mentioned that the annexation, boundary adjustment, and agreement were approved at the Lindon City Council meeting yesterday.

Mayor Fullmer called for questions from the council. Hearing none, she called for a motion**.**

Motion: COUNCILMEMBER JUDD MOVED TO APPROVE ORDINANCE 2018-11. COUNCILMEMBER EARNEST SECONDED THE MOTION.

Mr. McHargue stated that they also needed to authorize the plat and the agreement. Mr. Church agreed that they should approve them together. It was suggested that they add a condition to the motion.

Amended motion: COUNCILMEMBER JUDD MOVED TO APPROVE ORDINANCE 2018-11 AND AUTHORIZE THE MAYOR TO SIGN THE PLAT WITH THE CONDITION THAT THE INTERLOCAL AGREEMENT RESOLUTION 2018-12 BE APPROVED. COUNCILMEMBER EARNEST SECONDED THE MOTION. ROLL CALL WENT AS FOLLOWS: MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

9.3 DISCUSSION AND ACTION — <u>Interlocal Agreement – (Resolution 2018-12)</u>

The city of Vineyard requests approval of Resolution 2018-12 and the accompanying Interlocal Agreement associated with the boundary change with Lindon City requiring that the area be transferred back into Lindon should Vineyard sell the property in the future. The mayor and City Council may act to approve (or deny) this request by resolution.

Mayor Fullmer turned the time over to City Manager/Finance Director Jacob McHargue.

Mr. McHargue explained that the agreement stipulated that if Vineyard were to sell the land they would give it back to Lindon City. Mr. Church clarified that it was if they sold the land to a taxable entity. Mayor Fullmer explained that Vineyard chose to annex the land so that they did not have to go to Lindon for permitting of uses. She felt that this was a fair agreement.

Councilmember Judd asked if they sold the land, if the city would keep the proceeds from the sale. He remarked that the agreement ran for 50 years and he hoped that the city was still intact so after that time it would not mater. Mr. Church explained that the purpose of the agreement was that if Vineyard did not use the land for a public use then Lindon had the opportunity to have the land back.

Mayor Fullmer called further questions. Hearing none, she called for a motion.

Motion: COUNCILMEMBER FLAKE MOVED TO APPROVE THE INTERLOCAL AGREEMENT AND ALLOW THE MAYOR TO SIGN IT. COUNCILMEMBER JUDD SECONDED THE MOTION. MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

CLOSED SESSION

No closed session was held.

ADJOURNMENT

Mayor Fullmer called for a motion to adjourn the meeting.

Motion: COUNCILMEMBER RILEY MOVED TO ADJOURN THE MEETING AT 9:05 PM. COUNCILMEMBER EARNEST SECONDED THE MOTION. MAYOR FULLMER, COUNCILMEMBERS EARNEST, FLAKE, JUDD, AND RILEY VOTED AYE. THE MOTION CARRIED UNANIMOUSLY.

The next regularly scheduled meeting is September 12, 2018.

MINUTES APPROVED ON: _____

CERTIFIED CORRECT BY: /s/ Pamela Spencer
PAMELA SPENCER, CITY RECORDER

Resolution 2018-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VINEYARD, UTAH, APPROVING THE ISSUANCE BY THE ARIZONA INDUSTRIAL DEVELOPMENT AUTHORITY OF ITS CHARTER SCHOOL REVENUE BONDS (FRANKLIN DISCOVERY ACADEMY PROJECT) SERIES 2018A IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $15,000,000

WHEREAS, Three Twenty East Gammon Road, LLC (the "Borrower"), a Utah limited liability company, the sole member of which is the Franklin Schools Foundation, dba Franklin Discovery Academy, a Utah nonprofit corporation and an organization described in Section 501(c)(3) of the Code, has requested that the Arizona Industrial Development Authority (the "Authority") an Arizona nonprofit corporation designated as a political subdivision of the State of Arizona to issue revenue bonds in an aggregate principal amount not to exceed $15,000,000 (the "Bonds") to assist in financing the costs of the acquisition of certain charter school facilities and the associated improvements thereon to be owned by the Borrower and leased to Franklin Discovery Academy - Vineyard, a Utah nonprofit corporation and an organization described in Section 501(c)(3) of the Code (the "Charter School") located on an approximately 5.0 acre site at 320 E. Gammon Road in Vineyard, Utah (the "Facilities"), (ii) fund a bond reserve fund, (iii) fund capitalized interest on the Bonds, if any, and (iv) pay certain issuance expenses (collectively, the "Project"); and

WHEREAS, the Facilities will be initially owned by the Borrower and leased to and operated by the Charter School; and

WHEREAS, in order for interest on the Bonds to be excludable from gross income for federal income tax purposes, the issuance of the Bonds must, among other things, be approved by the applicable elected representative of a governmental unit in whose geographic jurisdiction the Project is located after a public hearing held following reasonable public notice, in compliance with Section 147(f) of the Internal Revenue Code of 1986, as amended (the "Code"); and

WHEREAS, the City Council (the "Council") of the City of Vineyard, Utah (the "City") is the "applicable elected representative" of the City for the Facilities located within the City; and

WHEREAS, public notice was given by publication of notice in the Daily Herald on August 29, 2018 (the "Public Notice"), a public hearing (the "Public Hearing") was convened at 6:00 p.m. on Wednesday, September 12, 2018, at the Vineyard City Council Chambers (the "City") located at 125 South Main Street, Vineyard, Utah. No one appeared, and no comments were received with respect to the issuance of the Bonds. The hearing was thereupon closed; and

WHEREAS, such public hearing was conducted in a manner that provided a reasonable opportunity to be heard for persons with differing views on both the issuance of the Bonds and the location and the nature of the Project which is to be financed by the Bonds; and

WHEREAS, the undersigned is the City Recorder of the City as of the date hereof.

NOW, THEREFORE, BE IT RESOLVED that:

Section 1. For the purposes of Section 147(f) of the Internal Revenue Code of 1986, as amended, the Council hereby approves the Project and the financing thereof through the issuance of the Bonds by the Authority in an aggregate principal amount not to exceed $15,000,000.

Section 2. The City has no responsibility for the payment of the principal of or interest on the Bonds or for any costs incurred by the Borrower with respect to the Bonds or the Project.

Section 3. This resolution is effective immediately on its passage.

_____

Mayor Julie Fullmer

Attest:

_____

City Recorder Pamela Spencer

STATE OF UTAH)
: ss.
CITY OF VINEYARD)

I, _____, City Recorder of the City of Vineyard, Utah, do hereby certify that the foregoing is a true copy of so much of the proceedings of the City Council of the City of Vineyard, Utah at a regular meeting held September 12, 2018, as it relates to the adoption of a resolution entitled "Resolution of the City Council of the City of Vineyard, Utah, Approving the Issuance by the Arizona Industrial Development Authority of its Charter School Revenue Bonds (Franklin Discovery Academy Project) Series 2018A in an Aggregate Principal Amount Not to Exceed $15,000,000" and the holding of a public hearing related thereto, and that said proceedings will be recorded in the minutes of the City Counsel of the City of Vineyard, Utah.

WITNESS my hand and the seal of the City of Vineyard, Utah, this ___ day of September, 2018.

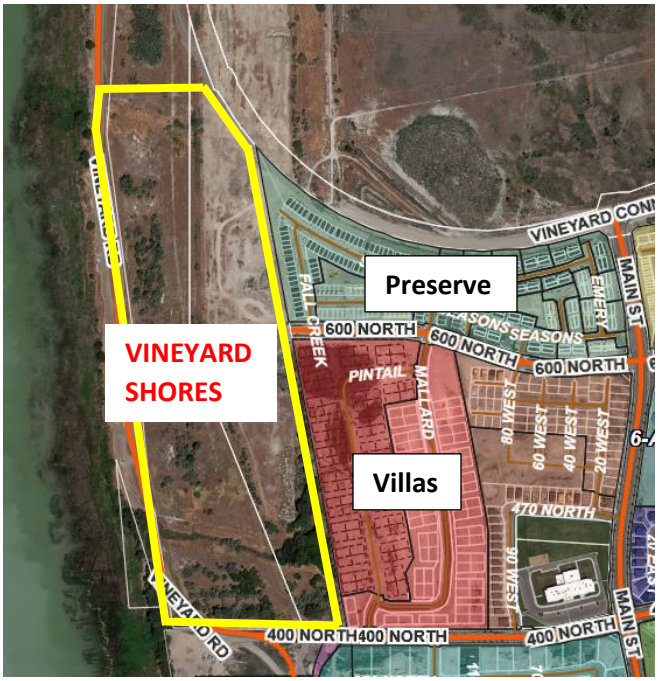
_____
City Recorder of the City of Vineyard, Utah

(SEAL)

VINEYARD
COMMUNITY DEVELOPMENT

CHANGES TO THIS STAFF REPORT ARE UNDERLINED

Date: September 12, 2018
From: Elizabeth Hart, planner
To: City Council
Item: **8.2** Vineyard Shores Preliminary Plat
Address: ~ 300 West and Vineyard Loop Road
Applicant: Edge Homes, LLC



INTRODUCTION

The applicant, Edge Homes, is requesting preliminary plat approval for the Vineyard Shores. The subject property is located within the Town Center Lake Front Residential district. The subject property extends north from 400 North to just south of the Vineyard Connector and extends west from the Waters Edge subdivisions the Preserve and Villas to the edge of the existing Vineyard Road and Utah Lake. The applicant is proposing fifteen (15) Single-Family Lots, forty (40) Condominium buildings and fifty-five (55) Townhome buildings for a total of 685 residential units.

The Planning Commission recommended approval on August 15th. City Council heard public comment on August 22, 2018. Staff has reviewed the preliminary plat and has found it to be in conformance with the Town Center zoning ordinance, staff is recommending approval with the listed conditions.

ANAYLISIS

The Lake Front Residential district promotes the connection to the edge of Utah Lake and adjacent trail system. Buildings front on Utah Lake with internal open spaces and access.

The subject property is 51.07 acres, which includes 13.38 acres of open space. The proposed open space for the development does not include any other public open space improvements. For all projects within the Town Center, twenty percent (20%) of the total project area is required as on-site open space. The applicant is proposing 26.2% of the project to be dedicated as open space. The Lake Front Residential District allows for the building types of small single-family lots, townhomes, mansion homes and single-purpose buildings. The applicant is proposing a total of 695 residential units, a density of 13.41 units per acre.

CATEGORY	PROPOSED	COMMENTS	CONFORMANCE
Property Size	51.07 Acres		NA
Total Open Space	13.38 acres or 26.2%	This does not include any public open space improvements. All projects within the Town Center are required to have 20% of the entire project area as on-site open space.	YES
Small Lot Single Family Dwellings	15 total lots	These lots are located on the southern portion of the property.	YES, an allowed building type.
Minimum Lot Size	4500 SF	Lot sizes range from 4,517 SF to 10,573 SF	YES
Minimum Lot Width	40 feet		YES
Condo Buildings	40 total buildings	Located throughout the development	YES, an allowed building type.
Condo Units	400 total units (10 units per building)		
Townhome Buildings	55 total buildings	Located throughout the development	YES, an allowed building type.
Townhome Units	270 total units		
6- Plex	19 buildings – 114 units		
5-plex	15 buildings – 80 units		
4-plex	17 buildings – 64 units		
3- plex	4 buildings - 12 units		
Total Residential Units	685		NA
Total Density	13.41 Units/Acre	The Lake Front Residential district does not call out a maximum density for this area.	

STREET TYPES

The Lake Front Residential has two street types within its district, Side Streets and the Lake Front Street.

Side Streets

The side street within the Lake Front Residential district is the extension of 600 North, also known as Vineyard Loop Road, into the subject property and intersects with the extension of 300 West. Side streets are meant to accommodate pedestrians and bicyclists, but since they are low-speed and low-traffic, active transportation users will not require the same degree of separation or protection.

CATEGORY	STANDARD	PROPOSED	COMMENTS
Typical Right-of Way Width	61 feet to 81 feet	88 total feet	The total width of the ROW includes the travel lanes, parallel parking, the park strip and sidewalk.
Parking Lanes	Parallel parking is required on both sides of the street	30 total parallel parking spaces	Spaces are located on both the North and South sides
Bicycle Facilities	Shared Bike Lanes	These items are included in the total ROW width, specifics measurements have not been given with the preliminary plat. With the final plat and site plan staff will check to make sure these minimum requirements are met.	
Pedestrian Facilities	6’ to 10’ of sidewalk		
Street Buffer	6’ to 8’+ of street buffer.		

Lake Front Street

The extension of 300 West into the Vineyard Shores development is considered to be the Lake Front Street. 300 West will come to a “T” intersection at 400 North and then continue north through the subject property following the powerline corridor until it runs into the future alignment of the Lake Promenade and Vineyard Connector. The Lake Front street is intended to accommodate a two-way vehicular traffic that features on-street parking on either side of the road and has a different cross-section that is more residential focused than commercial.

CATEGORY	STANDARD	PROPOSED	COMMENTS
Typical Right-of Way Width	100 feet to 200 feet	Between 100’ and 120’	This includes the travel lane width, parallel parking, the park strip and sidewalk
Parking Lanes	Parallel parking is required on one side of the street, or may alternate from one side of the street to the other depending on which side it is needed.	100 total parallel parking spaces	Located on mostly on the western side of the road with some on the east side near the south.
Bicycle Facilities	Not designated	These items are included in the total ROW width, specifics measurements have not been given with the preliminary plat. With the final plat and site	
Pedestrian Facilities	Minimum 8-foot wide clear sidewalk		

Street Buffer	A larger street buffer should be negotiated with adjacent land owners	plan staff will check to make sure these minimum requirements are met.

ENGINEERING

The Vineyard Engineering Department is currently working with a consultant on warrant studies for 600 North (Loop Rd) and 400 North intersections on Main Street to determine if additional traffic control measures are warranted. A final document will not be complete in time for the City Council meeting but a preliminary result should be available to staff prior to the meeting.

UTILITIES

The Vineyard Engineering Department has met several times with the applicant and their Engineer to review the utility serviceability of the Vineyard Shores Development. The Vineyard Engineering Department has found that there is adequate capacity and connectivity for water and waste water for this development. The development also has adequate discharge points to the Utah Lake for storm water and land drain systems. The existing utility backbone infrastructure was planned such in anticipation to service this area and the proposed density.

TRAFFIC IMPACT ANALYSIS

The applicant conducted a traffic impact analysis for how the Vineyard Shores development will impact the 400 North and 600 North (Loop Rd) intersections at Main Street. This report was given to the Council prior to the meeting.

FINDINGS:

With the proposed conditions, the preliminary plat meets the following findings:

- It is in conformance with the Town Center Zoning Ordinance.

PLANNING COMMISSION COMMENTS

The Planning Commission expressed several concerns during the August 15, 2018 meeting. Those concerns are listed below.

1. Traffic going into the development from 600 West (Vineyard Loop Road) to access Utah Lake as well as, the speed on the extension of 300 West into the development.
2. Visibility of Utah Lake, the planning commission added a condition that the building next to the clubhouse be removed to help with the visibility of the lake from 600 West (Vineyard Loop Road). The applicant has removed this building and the condition has been removed by staff.
3. Private parking within the development. Since parking has become an issue within the City the planning commission has discussed with the applicant to take measures to ensure that the future owners of the units are aware of how many parking stalls they are limited to.
4. Ensuring that there is easy pedestrian access to Utah Lake through the development and surrounding areas.
5. The connection of 300 West into the Lake Promenade area. This is a listed as a condition that the applicant will work with staff on the alignment of the 300 West with the Lake Promenade.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the preliminary plat on August 15, 2018 and is recommending approval with the conditions listed below.

STAFF RECOMMENDATION:
Staff is recommending approval to the City Council with the following conditions:

1. The applicant works with staff on the northern extension of the Lake Front Street and with the required alignment for the westside Lake Promenade.
2. The applicant pays any outstanding fees and makes any redline corrections.
3. The applicant is subject to all federal, state and local laws.

PROPOSED MOTION:
"I move to approve of the proposed Vineyard Shores Preliminary Plat with the proposed conditions."

Attachments:
Preliminary Plat Application
Preliminary Plat
Submitted Public Comment
Traffic Impact Analysis

THE TOWN OF Vineyard
240 East Gammon Road
Vineyard, Utah 84058
(801) 226-1929

PRELIMINARY SUBDIVISION APPLICATION

Please Note: Attachment of request specific documents is required prior to processing your application.

APPLICATION DATE: 7/26/2018

APPLICANT(S): Edge Homes, LLC - Steve Maddox

ADDRESS OF APPLICANT: 13702 S 200 W B12 Draper, UT 84020

BUSINESS PHONE #: 801-494-0151 CELL PHONE #:

EMAIL ADDRESS: steve@edgehomes.com FAX NUMBER:

CURRENT ZONING DISTICT DESIGNATION: Town Center

NUMBER OF PROPOSED NEW LOTS: 695

LOCATION/ADDRESS OF PROPOSED FINAL SUBDIVISION: 300 W Vineyard Loop Rd

TOTAL ACREAGE OF PROPOSED FINAL SUBDIVISION: 51

NAME OF PROPERTY OWNER(S): Anderson Geneva, LLC

CHECK APPLICABLE PERMIT ATTACHMENT:

	CONDITIONAL USE PERMIT		FINAL PLAT
	GENERAL MAP/PLAT AMENDMENT		LAND DISTURBANCE PERMIT
	MINOR PLAT AMENDMENT		PERMITTED USE SITE PLAN
x	PRELIMINARY SUBDIVISION		ROAD CUT PERMIT
	TEMPORARY USE PERMIT		VARIANCE APPLICATION

SIGNATURE OF APPLICANT(S):

Steve Maddox 7/26/18

Applicant Signature Date

Co-Applicant Signature Date

}ss
COUNTY OF UTAH}

I, the undersigned, Gerald D. Anderson, as owner(s) of the property identified in the attached application, depose that the statements herein contained in this application and the information provided in the attached plans and exhibits are in all respects true and correct to the best of my knowledge.

(Property Owner)

(Property Owner)

Subscribed and sworn before me, Allison L Forbush, a Notary Public, on this 30th day of July, 2018.

Allison L Forbush
(Notary Public)

My commission expires: 10/12/2018

ALLISON LYNN FORBUSH
Notary Public
State of Utah
Comm. No. 676921
My Comm. Expires Oct 12, 2018

AGENT AUTHORIZATION AFFIDAVIT

I, the undersigned, ~~EDGE~~ Gerald D. Anderson, as owner(s) of the real property described in the attached application, do authorize the following: EDGE Construction, as agent(s) and designated representative(s) regarding the attached application, to appear on my behalf before any administrative or legislative body in the Town of Vineyard considering this application, and to act in all respects as agent(s) in matters pertaining to the attached application.

(Property Owner)

(Property Owner)

Dated this 30th day of July, 2018, personally appeared before me, Gerald D Anderson, the signer(s) of the agent authorization who duly acknowledged to me that they executed the same.

Allison L Forbush
(Notary Public)

My commission expires: 10/12/18

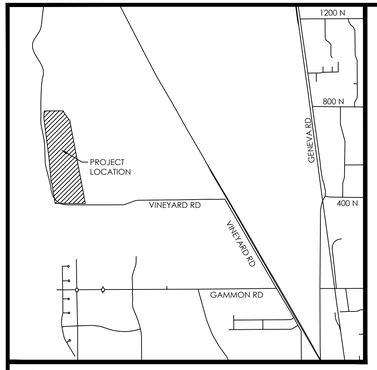
ALLISON LYNN FORBUSH
Notary Public
State of Utah
Comm. No. 676921
My Comm. Expires Oct 12, 2018

PRELIMINARY PLAT

VINEYARD SHORES

SUBDIVISION

LOCATED IN THE SE1/4 OF SECTION 7 & THE NE1/4 OF SECTION 18, T6S, R2E,
SALT LAKE BASE & MERIDIAN
VINEYARD CITY, UTAH COUNTY, UTAH



VICINITY MAP
N.T.S

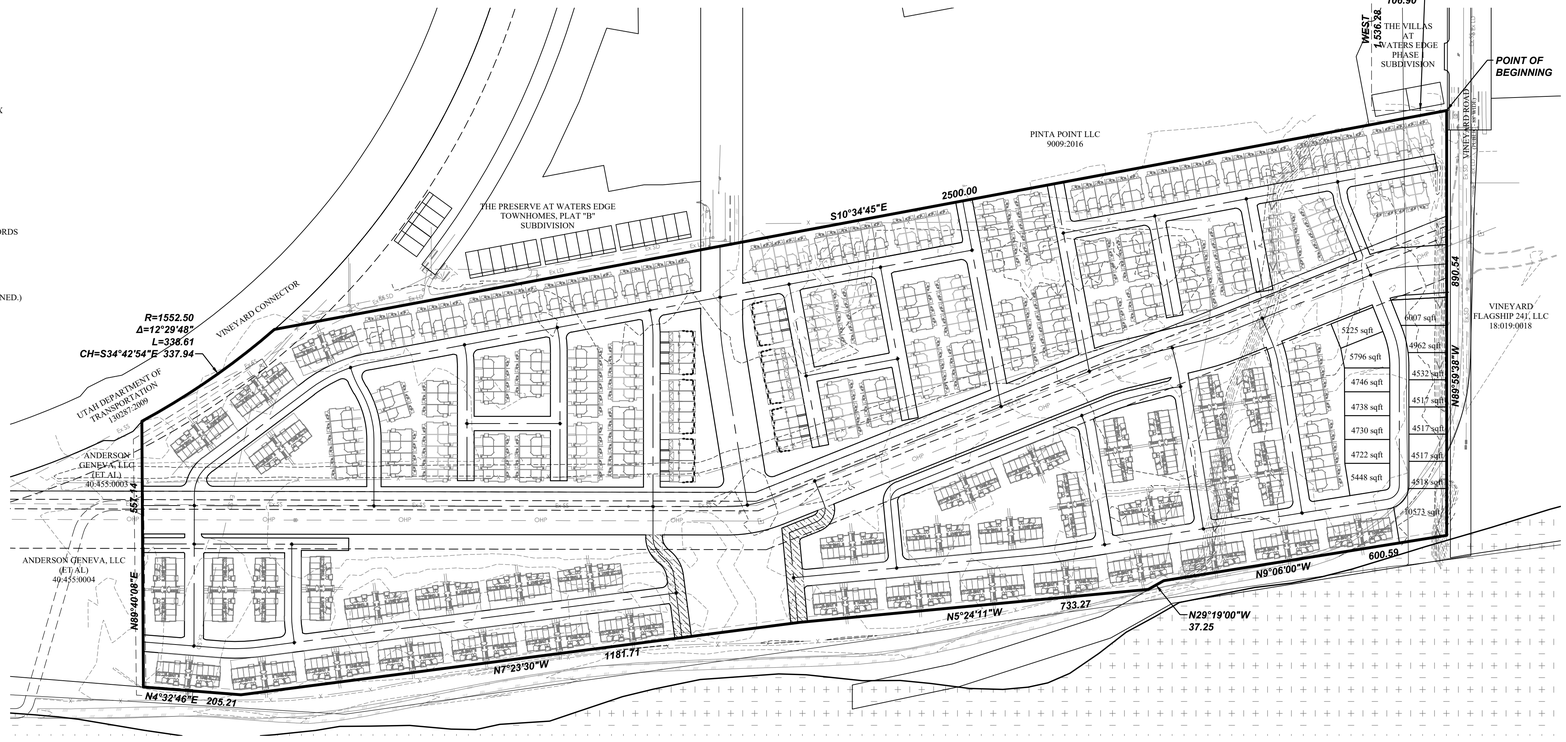
GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150ft.

LEGEND

- (XXXX) EXIST. CONTOUR MAJOR
- (XXXX) EXIST. CONTOUR MINOR
- BOUNDARY
- X X X EXIST. FENCE
- Ex SD EXIST. STORM DRAIN
- Ex SS EXIST. SANITARY SEWER
- Ex W EXIST. CULINARY WATER
- Ex IRR EXIST. IRRIGATION
- OHP EXIST. OVERHEAD POWER
- Ex W EXIST. CULINARY WATER
- EXIST. DITCH
- SECTION MONUMENT
- EXIST. SD INLET, MANHOLE & COMBO BOX
- EXIST. SEWER MANHOLE
- EXIST. LAND DRAIN MANHOLE
- EXIST. WATER VALVE & WATER METER
- EXIST. FIRE HYDRANT
- EXIST. ELECTRICAL BOX
- EXIST. STREET LIGHT
- EXIST. POWER POLE
- + XXXX.X EXIST. SPOT ELEVATION
- XXXX-XXXX DEED ENTRY No. PER UTAH COUNTY RECORDS
- XX-XXX-XXXX UTAH COUNTY PARCEL No.
- LIMITS OF ASPHALT PAVEMENT
- FEMA FLOOD ZONE AE (SPECIAL FLOOD HAZARD AREA INUNDATED BY 100-YEAR FLOOD WITH BASE ELEVATIONS DETERMINED.)



SURVEYOR'S CERTIFICATE

I, Spencer W. Llewelyn, do hereby certify that I am a Professional Land Surveyor, and that I hold Certificate No. 10516507 in accordance with Title 58, Chapter 22 of Utah State Code. I further certify by authority of the owners(s) that I have completed a Survey of the property described on this Plat in accordance with Section 17-23-17 of said Code, and have subdivided said tract of land into lots, blocks, streets, and easements, and the same has, or will be correctly surveyed, staked and monumented on the ground as shown on this Plat, and that this Plat is true and correct.

_____ _____
Spencer W. Llewelyn Date
Professional Land Surveyor
Certificate No. 10516507

BOUNDARY DESCRIPTION

Portions of the SE1/4 of Section 7 and the NE1/4 of Section 18, Township 6 South, Range 2 East, Salt Lake Base & Meridian, located in Vineyard, Utah, more particularly described as follows:

Beginning at a point on the Westerly line of THE VILLAS AT WATERS EDGE Subdivision, Phase 1, according to the Official Plat thereof on file in the Office of the Utah County Recorder, located West 1,536.28 feet and South 106.90 feet from the Southeast Corner of Section 7, T6S, R2E, SLB&M; thence N89°59'38"W 890.54 feet; thence N09°06'00"W 600.59 feet; thence N29°19'00"W 37.25 feet; thence N05°24'11"W 733.27 feet; thence N07°23'30"W 1,181.71 feet; thence N04°32'46"E 205.21 feet; thence N89°40'08"E 557.14 feet to the Southwesterly line of that Real Property described in Deed Entry No. 130287:2009; thence Southeasterly along said deed and along the arc of a non-tangent curve to the left having a radius of 1,552.50 feet (radius bears: N61°32'00"E) a distance of 338.61 feet through a central angle of 12°29'48" Chord: S34°42'54"E 337.94 feet to the Northwest corner of THE PRESERVE AT WATERS EDGE TOWNHOMES Subdivision, Plat "B", according to the Official Plat thereof on file in the Office of the Utah County Recorder; thence S10°34'45"E along said plat, and along the Westerly line of Vineyard Road as dedicated on MAIN STREET & VINEYARD ROAD DEDICATION according to the Official Plat thereof on file in the Office of the Utah County Recorder, and along the West line of that Real Property described in Deed Entry No. 9009:2016, and along said Westerly line of THE VILLAS AT WATERS EDGE Subdivision, Phase 1, 2,500.00 feet to the point of beginning.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENT THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, BLOCKS, STREETS AND EASEMENTS AND DO HEREBY DEDICATE ANY PUBLIC STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS WHEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____ A.D. 20____

_____

BY: _____
(PRINTED NAME)

ITS: _____

LIMITED LIABILITY ACKNOWLEDGMENT

STATE OF UTAH
S.S.
COUNTY OF _____

ON THE ____ DAY OF _____ A.D. 20____ PERSONALLY APPEARED BEFORE ME , THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR THE COUNTY OF _____, IN SAID STATE OF UTAH, _____, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT HE/SHE IS THE _____ OF _____ L.L.C., A UTAH L.L.C. AND THAT HE/SHE SIGNED THE OWNER'S DEDICATION FREELY AND VOLUNTARILY FOR AND IN BEHALF OF SAID LIMITED LIABILITY COMPANY FOR THE PURPOSES THEREIN MENTIONED.

MY COMMISSION EXPIRES: _____
A NOTARY PUBLIC COMMISSIONED IN UTAH RESIDING IN _____ COUNTY

MY COMMISSION No. _____
_____
PRINTED FULL NAME OF NOTARY

PREPARED FOR

EDGE HOMES, LLC
13702 SOUTH 200 WEST B12
DRAPER, UT 84020

CITY ATTORNEY	CITY ENGINEER	MAYOR	PLANNING COMMISSION
APPROVED AS TO FORM THIS ____ DAY OF _____ A.D. 20__	APPROVED AS TO FORM THIS ____ DAY OF _____ A.D. 20__	APPROVED AS TO FORM THIS ____ DAY OF _____ A.D. 20__	APPROVED AS TO FORM THIS ____ DAY OF _____ A.D. 20__
VINEYARD CITY ATTORNEY	VINEYARD CITY ENGINEER	VINEYARD CITY MAYOR	CHAIR,VINEYARD CITY PLANNING COMMISSION

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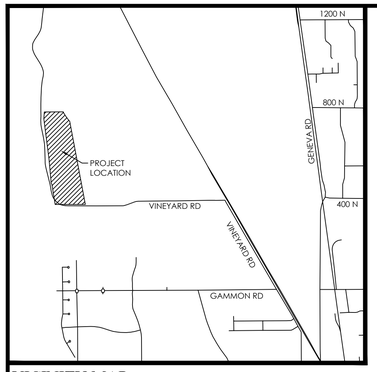
ENGINEERING AND SURVEYING, LLC
32 WEST CENTER STREET
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY ENGINEER SEAL	CITY RECORDER SEAL



VICINITY MAP
N.T.S

GRAPHIC SCALE

(IN FEET)
1 inch = 100ft.

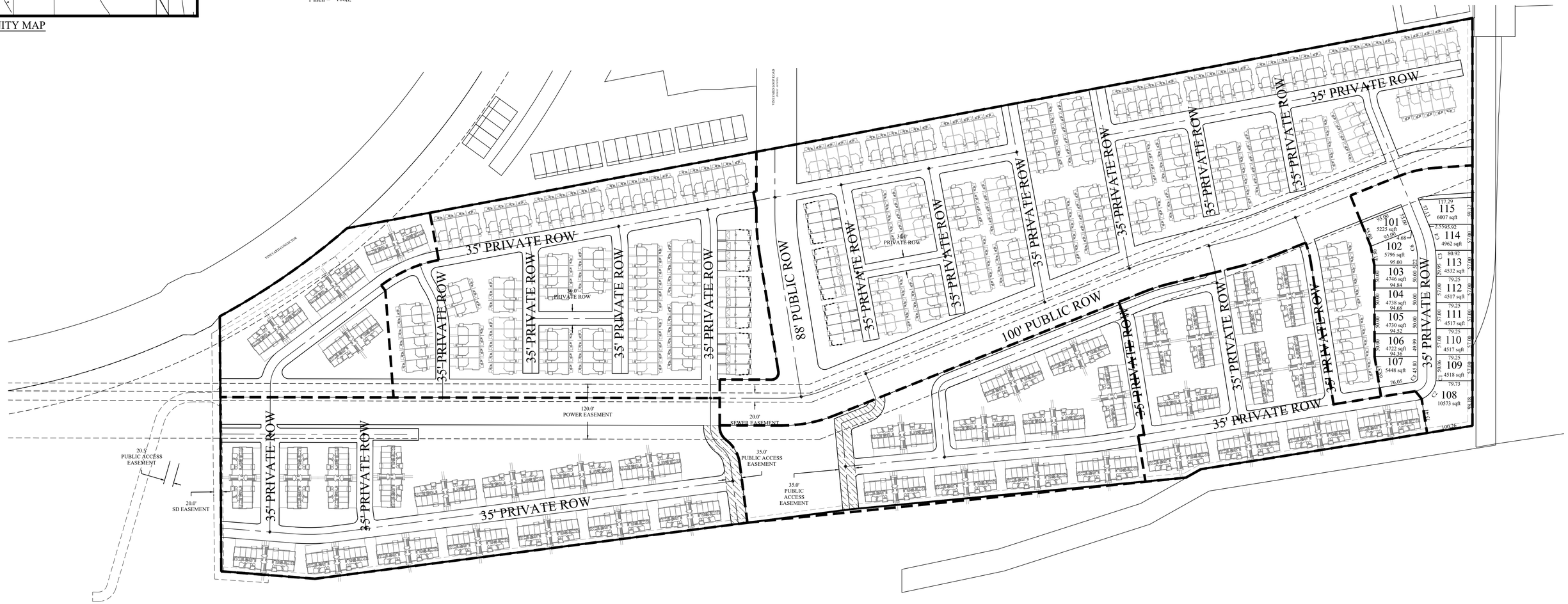
PRELIMINARY PLAT

VINEYARD SHORES

SUBDIVISION

LOCATED IN THE SE1/4 OF SECTION 7 & THE NE1/4 OF SECTION 18, T6S, R2E,
SALT LAKE BASE & MERIDIAN
VINEYARD CITY, UTAH COUNTY, UTAH

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	50.00	7°58'35"	6.96	S86°00'20"E	6.96
C2	50.00	60°32'11"	52.83	S51°44'57"E	50.40
C3	220.00	7°03'44"	27.12	N86°28'30"E	27.10
C4	220.00	14°43'58"	56.57	N75°34'39"E	56.41
C5	10.00	80°53'38"	14.12	N49°32'49"W	12.97
C6	180.00	21°47'42"	68.47	S79°06'31"W	68.06



LEGEND

- BOUNDARY
- SECTION LINE
- EASEMENT
- RIGHT-OF-WAY LINE
- BUILDING SETBACK
- EXISTING PROPERTY LINE
- STREET MONUMENT (TO BE SET)

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MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

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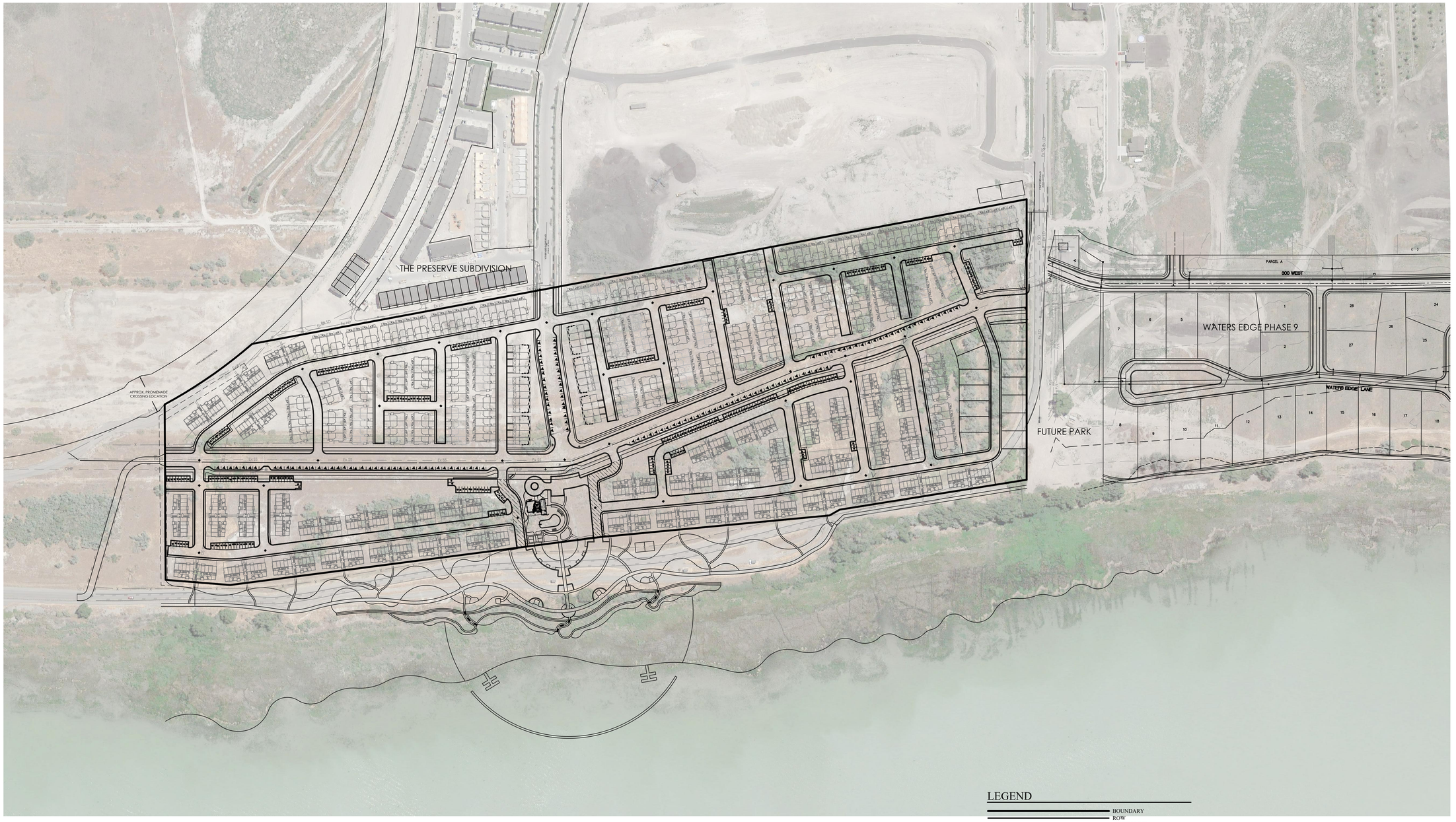
SALT LAKE BASE & MERIDIAN
VINEYARD CITY, UTAH COUNTY, UTAH

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY ENGINEER SEAL	CITY RECORDER SEAL



PRELIMINARY SITE PLAN NARRATIVE

LOCATED IN:	VINEYARD, UTAH COUNTY, UTAH
ORIGINAL PROPERTY	51.07 ACRES
OPEN SPACE	APPROX. 13.58 ACRES
OPEN SPACE PERCENTAGE	APPROX. 26.6%
TOTAL DENSITY	13.41 UNITS/ACRE
RESIDENTIAL PARKING STALLS	1,340
GUEST PARKING STALLS	300
PUBLIC PARKING STALLS	130
TOTAL PARKING STALLS	1,770

SINGLE FAMILY LOTS	15
CONDO BUILDINGS	40
TOTAL CONDO UNITS	400
TOWNHOME 6-PLEX UNITS	114
TOWNHOME 5-PLEX UNITS	80
TOWNHOME 4-PLEX UNITS	64
TOWNHOME 3-PLEX UNITS	12
TOTAL TOWNHOME UNITS	270
TOTAL RESIDENTIAL UNITS	685

N S

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- STREET SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE S
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- PUBLIC PARKING
- PRIVATE GUEST PARKING

CALL BEFORE YOU DIG! IT'S THE LAW! BLUE STAKES 1-800-662-4111

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www.focusutah.com

VINEYARD SHORES

VINEYARD, UTAH

SITE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	---	---
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---

SITE PLAN

Scale: 1"=150' Drawn: CJG
Date: 08/08/18 Job #: 18-006
Sheet: C3

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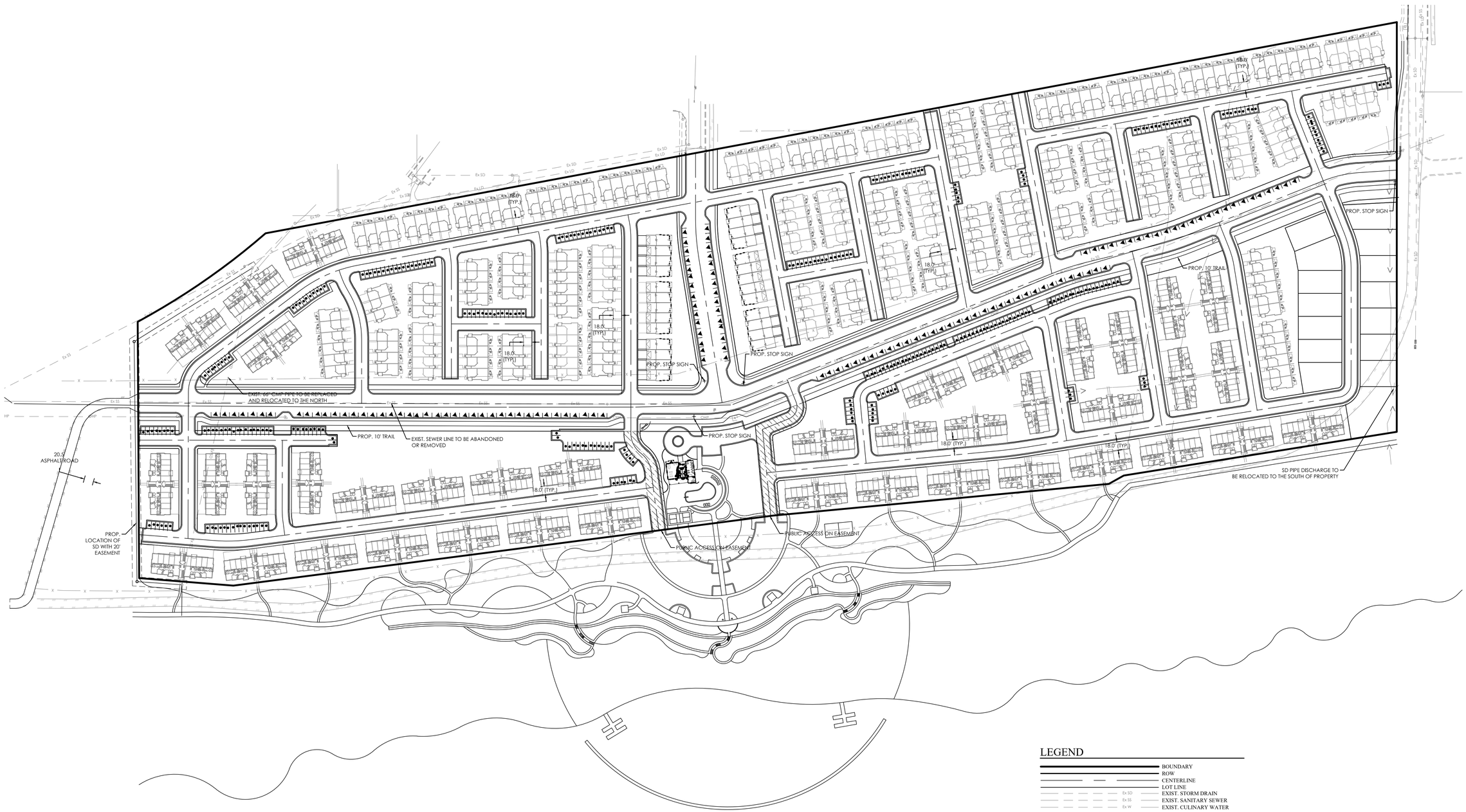

LEGEND

- BOUNDARY
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- EXIST. STORM DRAIN
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- WATER BLOW-OFF
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- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- PUBLIC PARKING
- PRIVATE GUEST PARKING

N S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100ft.

PRELIMINARY SITE PLAN NARRATIVE

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VINEYARD SHORES

VINEYARD, UTAH

SITE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

SITE PLAN

Scale:	1"=100'	Drawn:	CJG
Date:	08/08/18	Job #:	18-006
Sheet:	C3.1		

Z:_2018\18-006 Vineyard Multi Family\design\Sheets\Preliminary Plat\C3.1 SITE PLAN.dwg

Elizabeth Hart

From: Anthony Jenkins <anthony.jenkins6@gmail.com>
Sent: Wednesday, August 22, 2018 9:17 PM
To: Elizabeth Hart; Morgan Brim
Subject: Public Record Comments: Vineyard Shores

I had to leave the meeting on 8.22.2018 prior to sharing my comments on the Vineyard Shores project. I would like my comments enteted in yhe piblic record.

I may have missed something but i was disappointed in the format of the meeting. It seemed like the Mayor was soliciting negative or oppoaing comments only which left some supporters in the audience wondering if or when they should speak.

Just like those who opposed this project, I don't speak for anyone other than myself.
I am not opposed too high density if it is done well. What I am opposed to is not allowing a project that checks all the zoning requirements being challenged. If the council isn't okay with a confirming project they should have zoned differently.

Question for Vineyard's Counsel: What can city leaders do to stop or change a project that meets all zoning requirements? If they did require changes not in the zoning ordinance, would that open the city up to litigation?

One last point -- I was taken aback by many of the comments tonight. I am sure they are good people with good intentions, but I found it saddening to hear residents disparrage people who live in high density housing. Not everyone can afford or wants to live in a single family home on a half acre. The audacity to assume people in apartments and with lower income automatically bring crime was surprising. We've all lived in apartments and we are good people so why not give these residents a chance to enjoy our community in the housing they prefer and can afford?

I honestly think having residents with such disdain for those who live in high density housing (a massive portion of the city) is far more detrimental to our sense of community than any housing project could ever be.

We say Vineyard is a place for everyone; let's actually mean it.

I welcome land owners and developers working with staff and within the bounds of the ordinances set by the council.

Vineyard Shores

Traffic Impact Analysis

Prepared For: Edge Homes

Michael Baker

INTERNATIONAL

September 7, 2018

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1.0 Executive Summary

1.1 DESCRIPTION OF PROJECT

This report presents the results of a traffic impact analysis undertaken for the Vineyard Shores Development, located in Vineyard, Utah. This subdivision will consist of 15 Single Family Residential Units, 400 Condominium Units and 270 Townhome Units. The project site is located between Vineyard Road and Vineyard Loop Road, just west of Main Street. Currently the proposed parcel of land is vacant. The nearest intersection within ¼ mile of the development are Vineyard Loop Road/Main Street and Vineyard Road/Main Street. Figure 1 illustrates the Vicinity Map and the location of this development to the adjacent roadway network. Access to the Vineyard Shores Development will be serviced from three access locations. One access is located to the south of the development onto Vineyard Road. The second access is located on the east side of the development and accesses onto Vineyard Loop Road. The third access is to the north of the development and will tie into the existing Vineyard Road as it extends to the north. The Vineyard Shores Development will realign the existing Vineyard Road as it runs along the south side of the development and curves north. The realignment of Vineyard Road will run through the center of this proposed development.

The proposed development will consist of 15 Single Family Residential Units, 400 Condominium Units and 270 Townhome Units. Refer to Figure 2 for the site plan of the Vineyard Shores Development and the location of the different land uses within the development along with the proposed locations of the two accesses.

This study projects the traffic associated with this development at full build-out, which is anticipated by the end of 2020. The traffic associated with this development is generated using the latest version of the Trip Generation Manuals published by the Institute of Transportation Engineers (ITE) and reflect a full-build scenario of the development.

This area of Vineyard is primarily being developed with multiple land uses. The Vineyard Shores Development will sit adjacent to The Preserve at Waters Edge Subdivision and The Villas at Waters Edge Subdivision. Vineyard Loop Road divides these two existing subdivisions and will extend west through the proposed Vineyard Shores Development. Vineyard Road will be

realigned to run north through the center of this development and continue north tying back into the existing Vineyard Road alignment. Per the Vineyard City Development Standards and from conversations with City Staff, the Vineyard Shores Development will fall within a Level II traffic impact analysis per UDOT Traffic Impact Study Guidelines since this development will generate less than 500 peak hour trips (306 AM peak hour trips and 336 PM peak hour trips). After discussing with the City's Engineering Staff, the study area for this development will include the following intersections:

- Vineyard Loop Road and Main Street
- Vineyard Road (400 North) and Main Street

The study area will also consist of the three accesses to the development.

1.2 PRINCIPAL FINDINGS AND RECOMMENDATIONS

The existing traffic counts that were collected at the Vineyard Loop Road/Main Street and the Vineyard Road/Main Street intersections. The Vineyard Loop Road and Main Street intersection was analyzed with the existing traffic volumes and lane configuration and currently this intersection function at a LOS "A" for all movements. The proposed roadway network within the Vineyard Shores Development is designed to provide an efficient flow of traffic throughout the development also providing safe ingress and egress to the existing roadway network. Accesses onto Vineyard Loop Road and Vineyard Road will all be designed and constructed to meet City Standards that will allow for the proposed traffic to enter and exit the site safely and efficiently.

Vineyard City is currently in growth mode with developments to the east and south of Vineyard Shores under construction. Vineyard Loop Road currently is a minor connector roadway to provides access to the planned and existing developments. Vineyard Road is a Collector roadway that provides access to the surrounding developments and also provides access to Center Street. With the planned land use of residential homes, condominiums and townhomes within Vineyard Shores, it is anticipated the majority of traffic will use Vineyard Road and Vineyard Loop Road to reach their destinations of work, school and/or shopping. It should be noted the Vineyard Town

Center is planned for the parcels of land located north of this development and Vineyard Connector is a planned roadway to run along the north of this parcel.

Figure 3 illustrates the existing traffic volumes at the study area intersections. Figures 4 and 5 illustrate the projected traffic volumes at the study area intersections under the Background Conditions, without the Vineyard Shores Development, under the Opening Year (2020) and 5-years after Opening (2025), respectively. With growth occurring in Vineyard, but also with limited land available, a 4% growth is anticipated to generate the background traffic volumes in 2020. After 2020, it is anticipated the growth in traffic will normalize to an annual 2% increase. Combining the Background Traffic Volumes and the Project Generated Traffic Volumes, Figures 8 and 9 represent the Future Year Volumes that are anticipated at the study area intersections and proposed accesses to Vineyard Shores. Each of the proposed accesses to the development will be designed with one receiving lane and one exiting lane that will allow left and right turn movement out of the development.

Main Street and Vineyard Loop Road:

Currently this two-way stop-controlled intersection functions at an overall level of service of “A” under both the AM and PM peak hours. All northbound, southbound, eastbound and westbound movements at this intersection function at an acceptable Level of Service “C” or better. By applying the future growth rate to the existing traffic volumes, all movements in the 2020 and 2025 Background scenario at this intersection will continue to function at an acceptable LOS “C” or better. With the addition of the Vineyard Shores Development in 2020, all movements at this intersection will continue to function at an acceptable level of service “D” with the overall level of service at the intersection still functioning at an “A”. In 2025, with the addition of the Vineyard Shores Development the overall level of service will continue to function at a “B” or better and all movements will function at a level of service “B” except the eastbound movement which will function at a level “E” which is acceptable in the Future Year scenarios. This intersection will continue to function at an acceptable level of service under all study year scenarios and no additional improvements to this intersection are necessary with the addition of the Vineyard Shores Development.

Main Street and Vineyard Road:

Under the existing conditions, all movements at the Main Street and Vineyard Road intersection currently function at an acceptable level of service “B” or better with an overall level of service “A”. In the 2020 and 2025 Background Conditions, this intersection will continue to function at an overall level of service “A” and a level of service “B” or better at all movements. With the addition of the Vineyard Shores Development, under the 2020 Background with Project Conditions, this intersection will continue to function at an overall level of service “A” and each movement will function with a level of service “C” or better. In 2025 with the addition of the Vineyard Shores Development, all movements will continue to function at an acceptable level of service “C” or better and the overall level of service will remain an “A”. No additional improvements are needed at this intersection with the addition of the Vineyard Shores Development.

North Access (Access #3) and Vineyard Road:

The Vineyard Shores Development will realign Vineyard Road to run through the center of the development and continue north to tie back into the existing alignment north of this development. With a minimal amount of traffic using this portion of Vineyard Road and no existing intersections, traffic will experience no delay. Vineyard Road shall be designed and constructed to meet City Standards.

2.0 Introduction

2.1 DEVELOPMENT DESCRIPTION

The proposed Vineyard Shores Development is situated on roughly 45 acres of vacant land on the west side of Vineyard, Utah adjacent to Utah Lake. Refer to the Vicinity Map and Site Plan in Figures 1 and 2, respectively. The proposed site will consist of 15 Single Family Residential Units, 400 Condominium Units and 270 Townhome Units. Full build-out of this development is anticipated for 2020. Vineyard Road is planned to be extended along the south frontage of Vineyard Shores. There are two planned accesses to the Vineyard Shores Development. The South Access will tie into Vineyard Road along the south frontage of the development. The East Access will tie into Vineyard Loop Road along the east frontage of the development. Refer to Figure 2 for the access locations.

Vineyard Shores is anticipated to generate 306 AM Peak Hour Trips and 363 PM Peak Hour Trips. With two different accesses these trips will be distributed and are shown in Figure 7. These trips are distributed along Vineyard Road and Vineyard Loop Road to the intersections with Main Street. Figure 6 illustrates the anticipated trip distribution percentages.

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

NORTH

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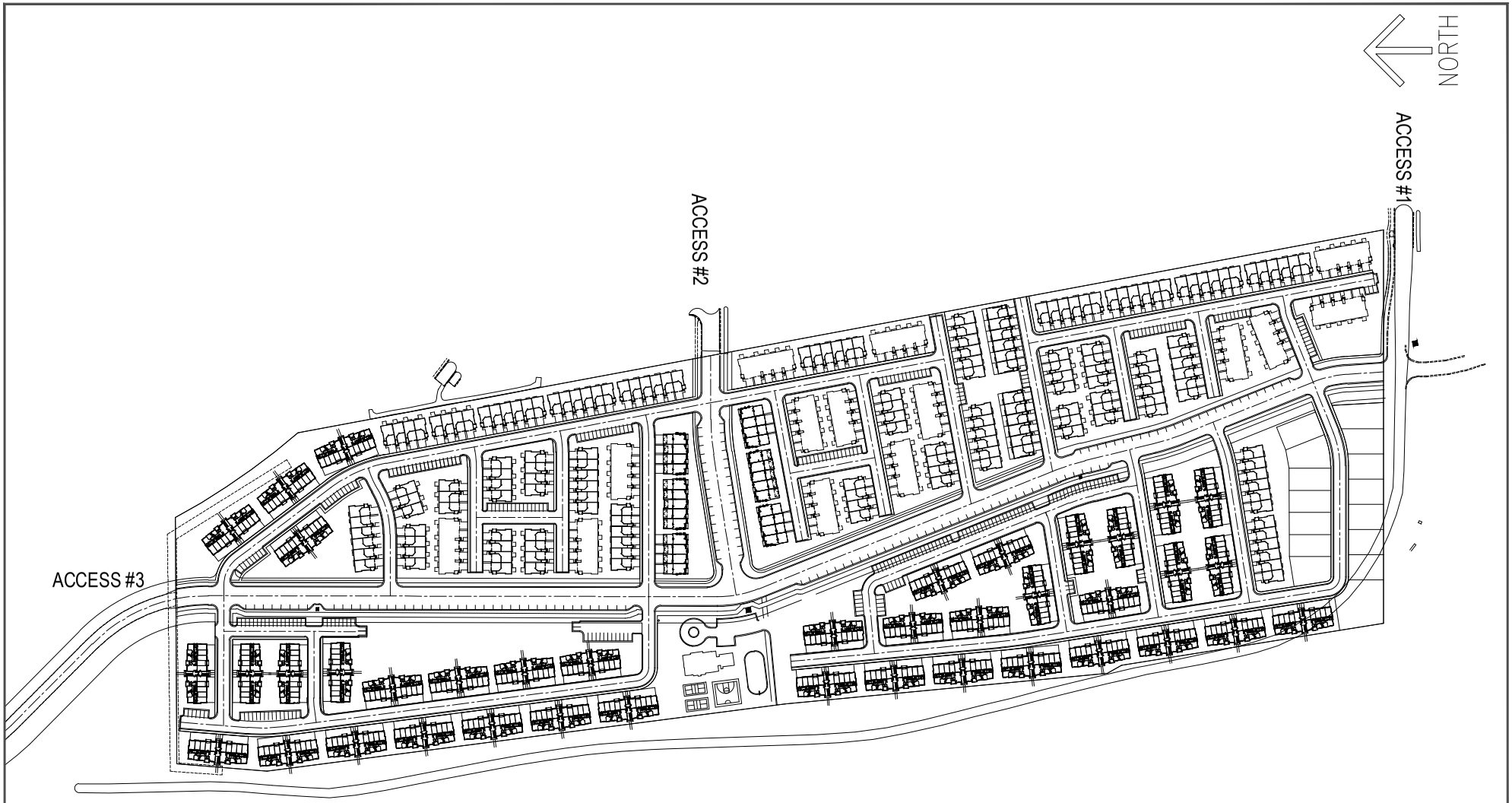
FIGURE 1 - VICINITY MAP



VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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FIGURE 2 - SITE PLAN

3.0 Existing Conditions

3.1 ROADWAYS

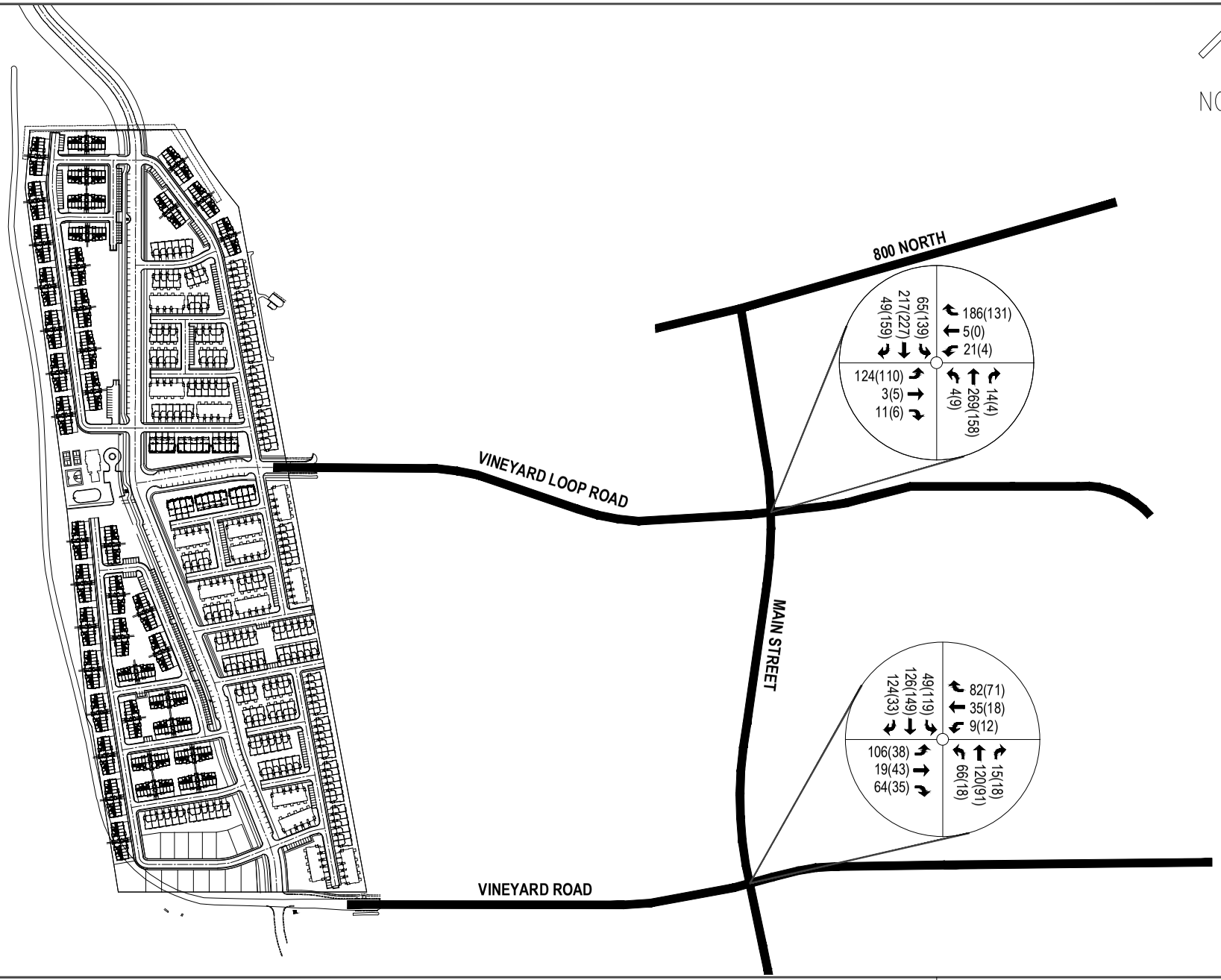
Vineyard Road primarily serves as an Local Collector and extends east and west through Vineyard City. Vineyard Road currently runs along the south frontage of the Vineyard Shores Development and continues along the east shoreline of Utah Lake. Vineyard Road will be redesigned to run through the Vineyard Shores Development. Vineyard Road currently consists of one lane in each direction with a center two-way left turn lane. Posted speed limit is 35 mph.

Vineyard Loop Road currently serves also as a Local Connector that runs east and west. Vineyard Loop Road will tie into the Vineyard Shores Development to the west and loops around to the east tying into Vineyard Road. Vineyard Loop Road consists of one lane in each direction with a center two-way left turn lane. Posted speed limit is 35 mph.

Main Street is an Arterial Street that runs north and south through Vineyard. Traffic along Main Street is a free flowing with stop-controlled movements along the side streets. Through the study area, Main Street consists of two northbound and two southbound lanes with separate left and right turn lanes at the intersections. Posted speed limit along Main Street is 35 mph.

3.2 EXISTING TRAFFIC VOLUMES

This area within the City limits is currently growing. Developments surrounding the proposed Vineyard Shores Development are currently under construction. Utah Lake is located to the west of Vineyard Shores. Existing AM and PM peak hour traffic volumes were collected at the study area intersections on August 30th, between the peak hours of 7 AM to 9 AM and 4 PM to 6 PM. From the existing counts that were collected, it was determined the peak hours at the study area intersections are from 7:45 AM to 8:45 AM and from 5:00 PM to 6:00 PM. These volumes are illustrated in Figure 3.



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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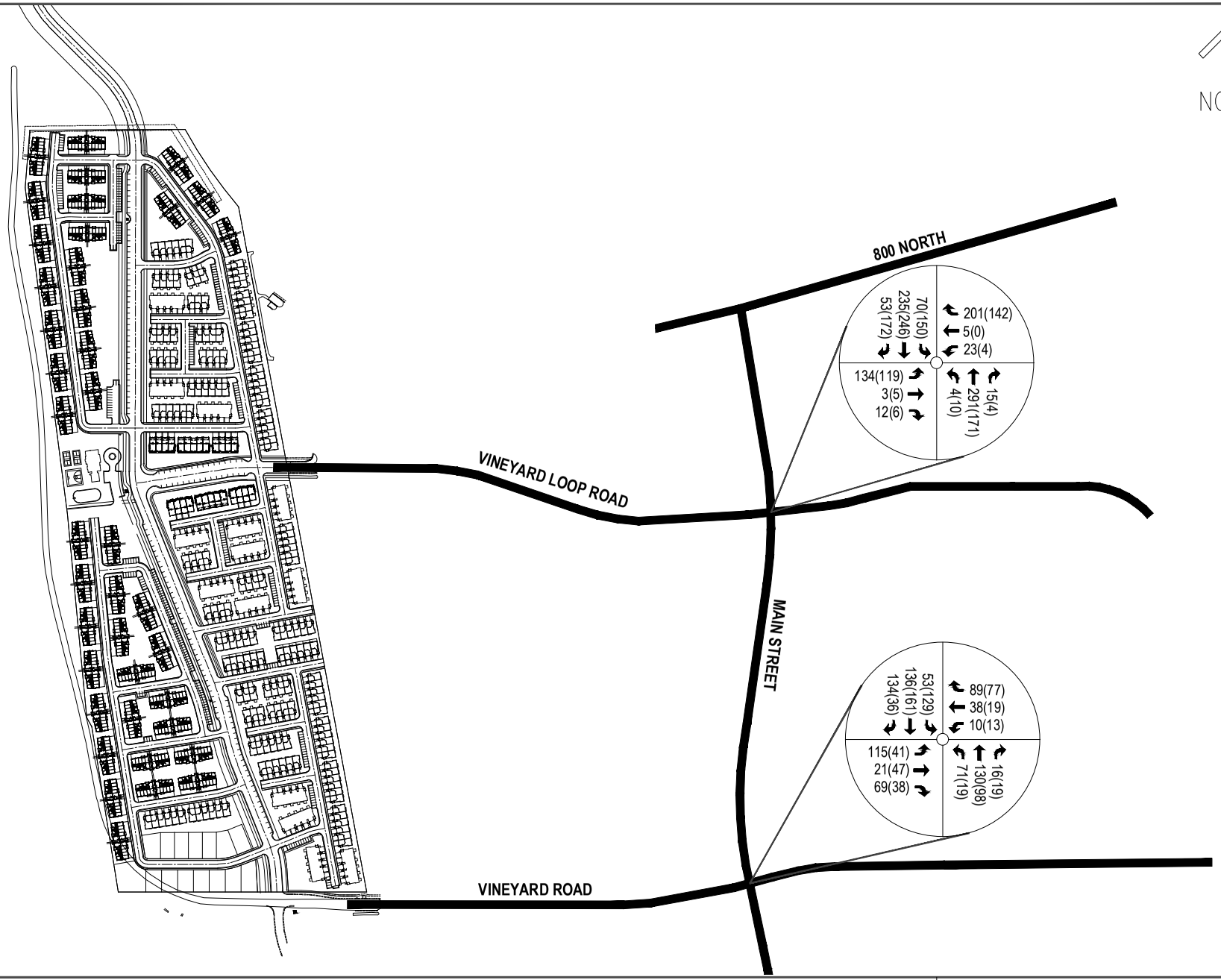
FIGURE 3 - 2018 EXISTING TRAFFIC VOLUMES

4.0 Background Traffic Volumes

Based on the recent growth in this area and the available vacant land, it is assumed this area will experience a fairly aggressive growth over the next 2 to 3 years. In order to generate the Background Traffic Volumes, a growth rate of 4% was used up through 2020. It is assumed after 2020, the growth in this area will maintain a steady growth of 2% due to the amount of land available in this area and development currently under construction. Applying the 4% growth rate the existing traffic volumes, the Background Year of 2020 (full build out of the Vineyard Shores Development), and 5-years after opening year (2025 Background Traffic Volumes). The 2020 Background Traffic Volumes are illustrated in Figure 4 and the 2025 Background Traffic Volumes are illustrated in Figure 5. All these volumes are the anticipated traffic volumes on the existing roadway network whether the proposed Vineyard Shores Development is constructed or not.



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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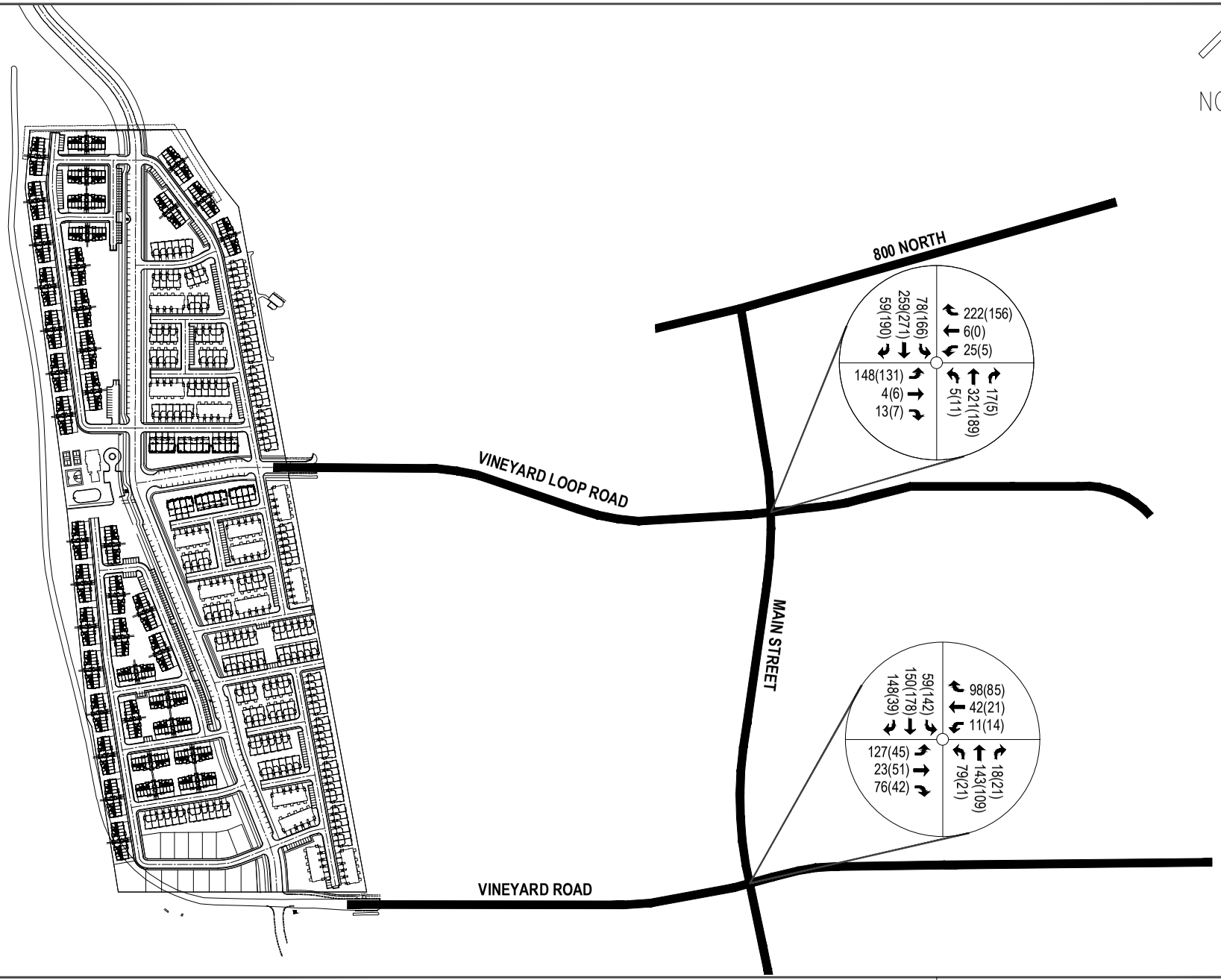
FIGURE 4 - 2020 BACKGROUND TRAFFIC VOLUMES



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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FIGURE 5 - 2025 BACKGROUND TRAFFIC VOLUMES

5.0 Trip Generation and Trip Distribution

The proposed Vineyard Shores Development will consist of 15 Single Family Residential Units, 400 Condominium Units and 270 Townhome Units. For purposes of this study, the trip generation was performed at full build-out of this site. It is assumed full build-out will occur in 2020. Trip generation rates were determined using land use codes for Single Family Detached Housing, Residential Condominium/Townhouse. Trip generation rates were determined using the 9th edition of the Trip Generation Manual, an ITE information report, published by the Institute of Transportation Engineers, Washington DC. Trips generated by the proposed development which will occur during the peak hours of the proposed development were used for the analysis. Since existing traffic counts were collected and the peak hour of the adjacent roadway network was calculated, the Peak Hour of Adjacent Street Traffic rates are used to generate the AM and PM Peak Hour Volumes. The trips generated from the proposed development are presented in Table 1. There are no trip reductions used in this analysis due to the nature of the land uses.

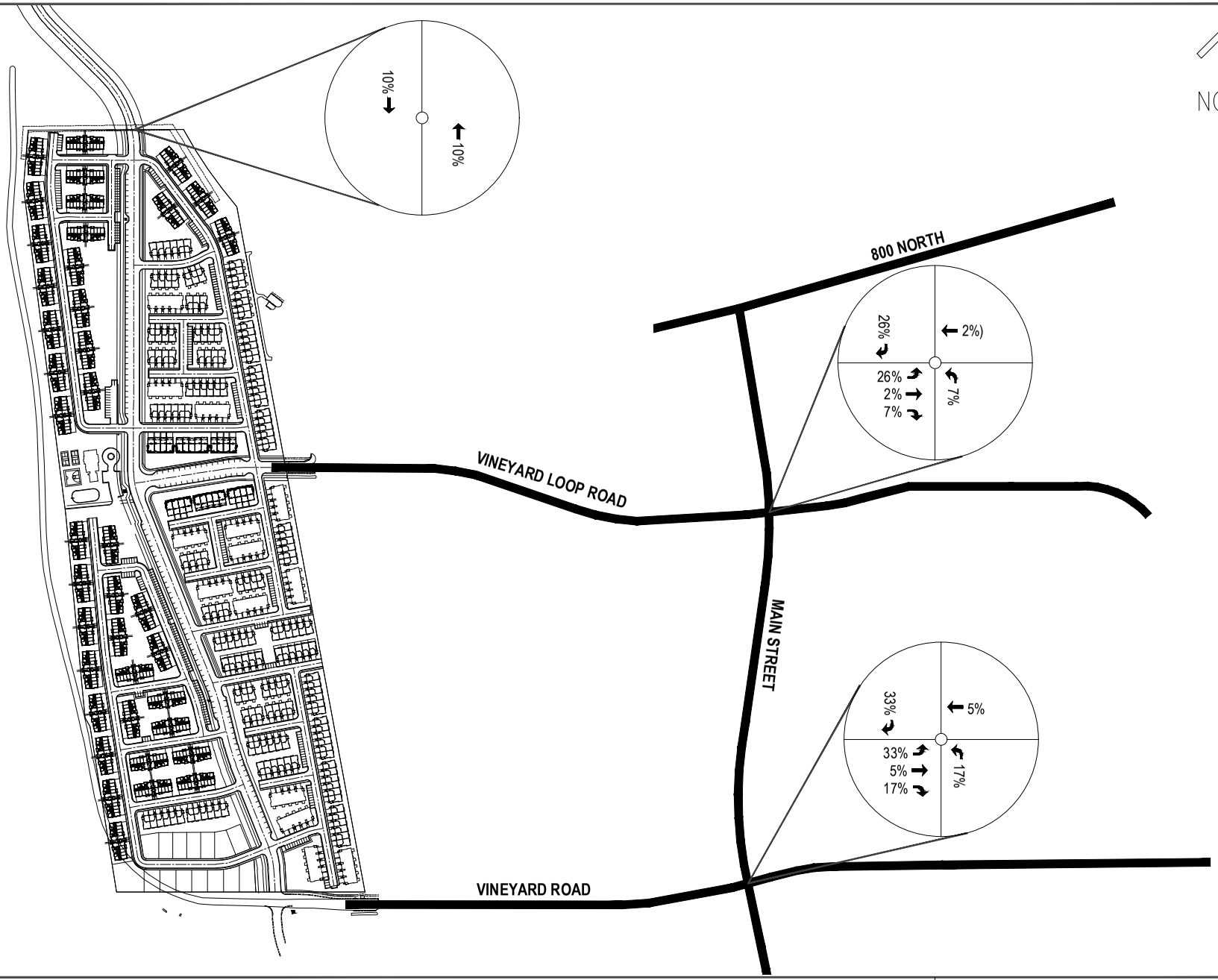
Table 1 - Trip Generation – Average Weekday Driveway Volumes

ITE Land Use Code	Land Use Description	Size	Daily (AADT)	Trip Generation (AM)		Trip Generation (PM)	
				Enter	Exit	Enter	Exit
210	Single Family Units	15 Dwelling Units	143	3	8	9	6
230	Townhome Units	270 Dwelling Units	1569	20	99	94	46
230	Condominium Units	400 Dwelling Units	2324	30	146	139	69
TOTAL TRIPS			**4,036**	**53**	**253**	**242**	**121**

5.1 SITE TRAFFIC DISTRIBUTION

Site ingress/egress traffic at the three proposed site driveways were distributed based on the anticipated direction vehicles would be coming from or going to. Directional distribution was estimated based on current land uses within the proximity of the Vineyard Shores Development, mainly employment districts, shopping area, schools, etc. It is anticipated 10% of the overall traffic generated by the Vineyard Shores Development will enter and exit the development to the north along the existing Vineyard Road. 35% of the traffic will enter and exit the development along Vineyard Loop Road since the road is smaller. The remaining 55% is anticipated to enter and exit

the development along Vineyard Road to the south of the development. Figure 6 illustrates the site traffic distribution percentages for the development. Using the distribution percentages along with projected traffic volumes outlined in Table 1, Figure 7 illustrates the site traffic volumes anticipated for the Vineyard Shores Development.



LEGEND
XX% = DISTRIBUTION PERCENTAGE

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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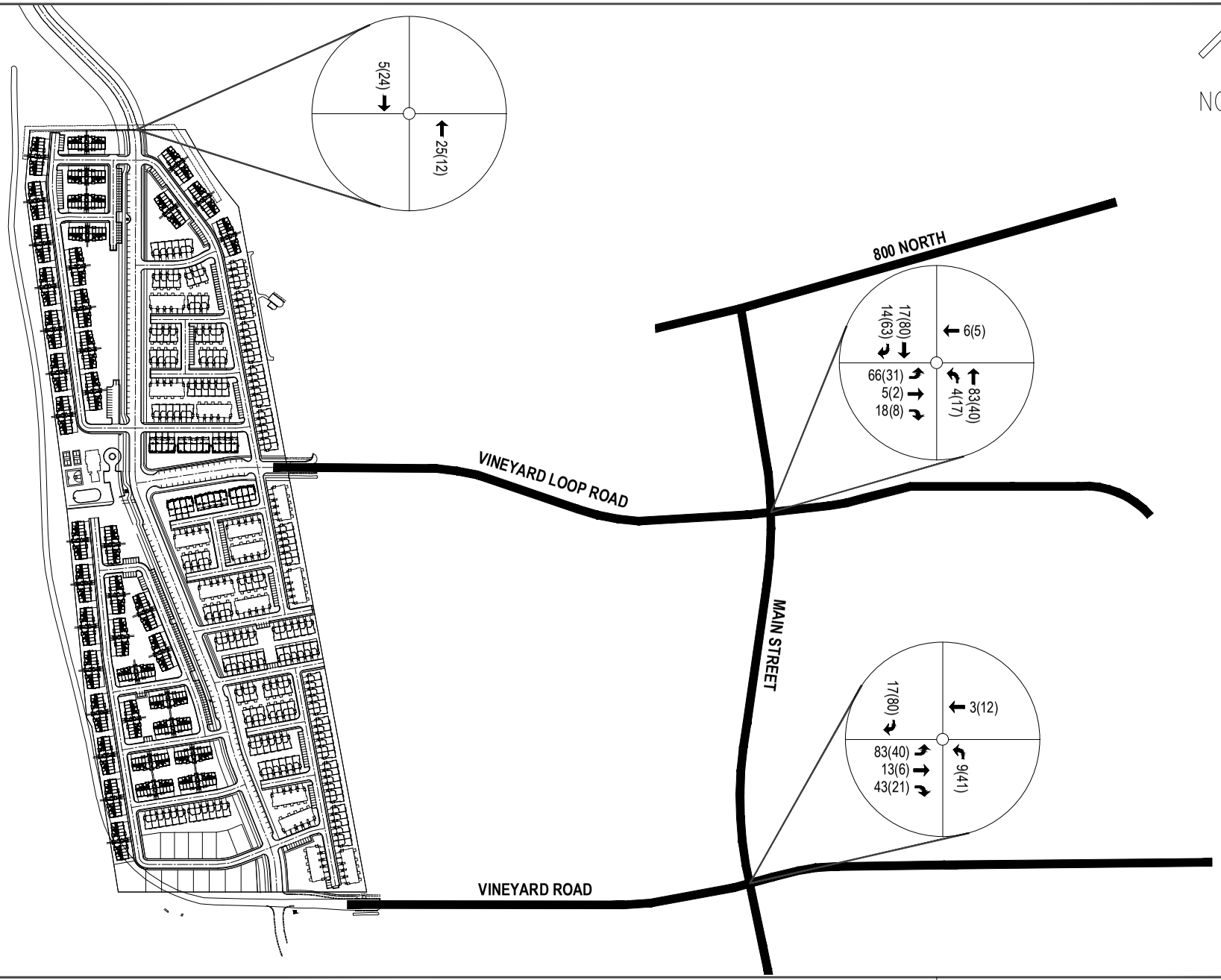
FIGURE 6 - TRIP DISTRIBUTION



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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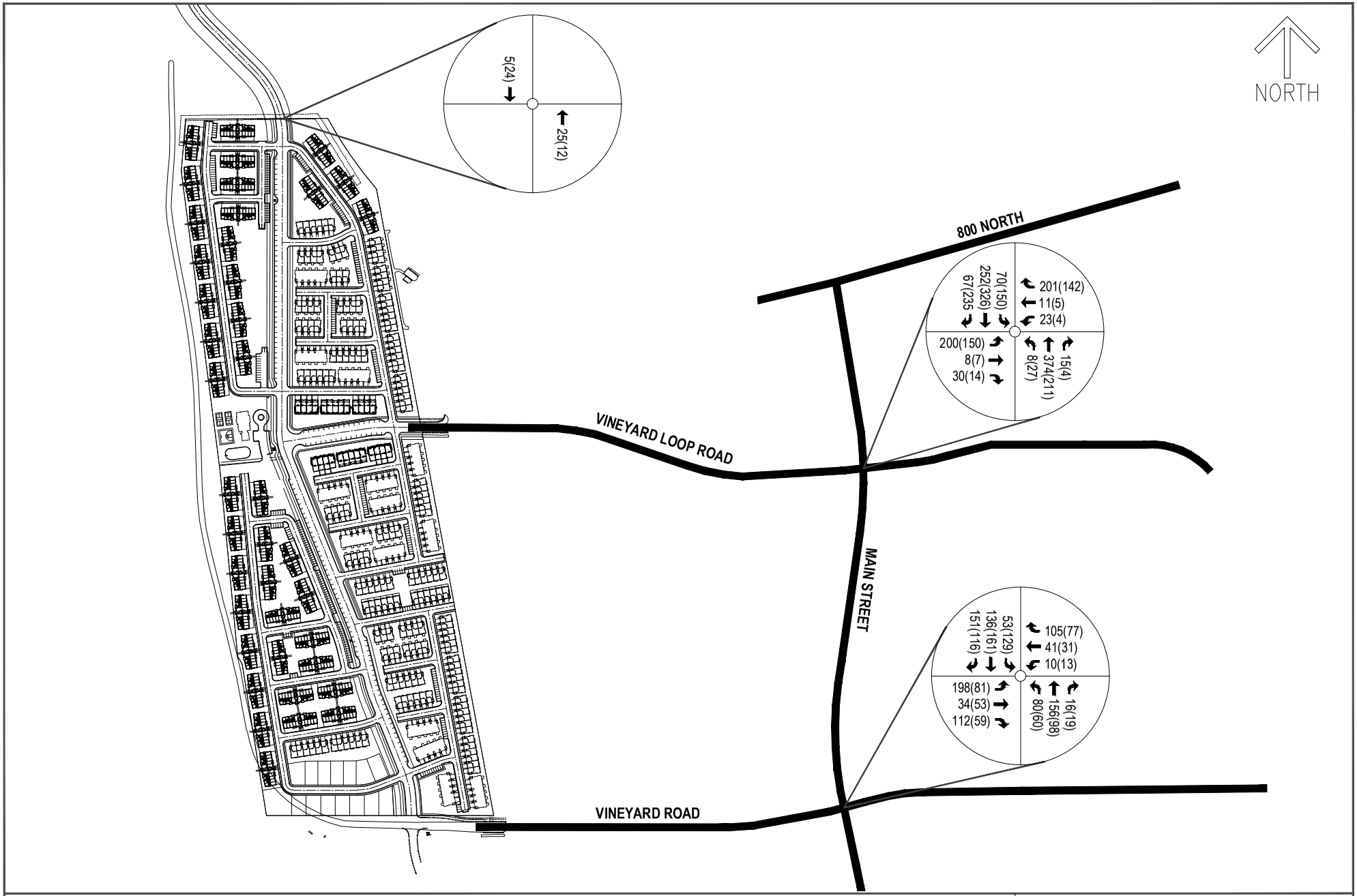
FIGURE 7 - TRIP GENERATION TRAFFIC VOLUMES

6.0 Future Traffic Conditions

The Projected Traffic Volumes represent the traffic that will be added to the study area with the addition of the proposed Vineyard Shores Development. Using the Background Traffic Volumes (Figures 4 and 5) and the Site Generated Traffic Volumes (Figure 7), the Future (Background with Project) Traffic Volumes are generated. Per the developer's schedule, it is anticipated that the proposed site will be built out in 2020. The 2020 Future Traffic Volumes, which illustrate the full build-out of the Vineyard Shores Development with the projected traffic, are illustrated in Figure 8.

Using the projected 2025 Background Traffic Volumes (Figure 5) and applying the anticipated trip generation traffic volumes (Figure 7), Figure 9 illustrates the anticipated 2025 Future Traffic Volumes.



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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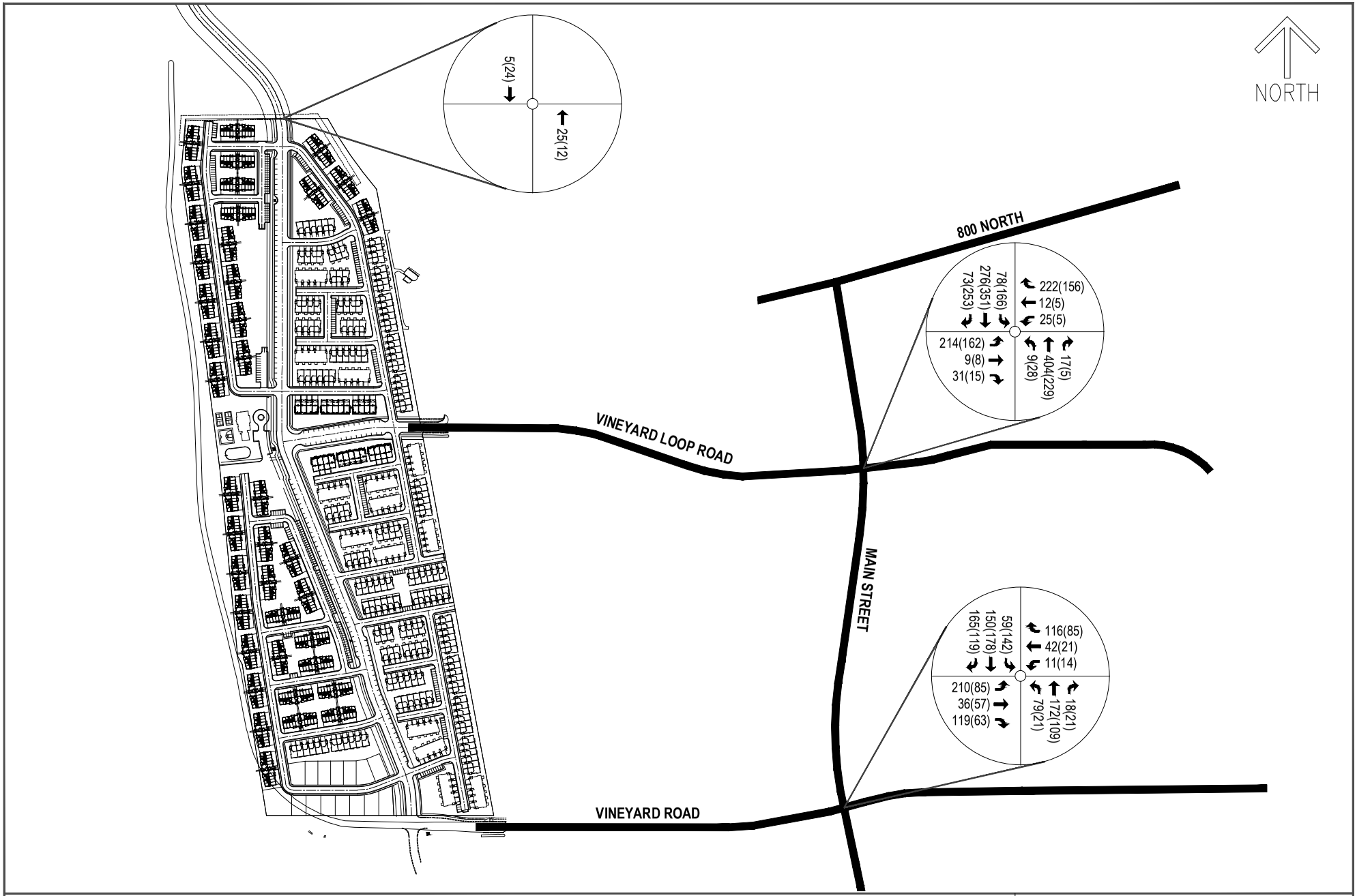
FIGURE 8 - 2020 BACKGROUND W/ PROJECT TRAFFIC VOLUMES



LEGEND
XX(XX) = AM(PM) PEAK HOUR VOLUMES

VINEYARD SHORES TRAFFIC IMPACT ANALYSIS

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FIGURE 9 - 2025 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

7.0 Capacity Analysis

Intersection capacity analysis was performed at the study area intersection along with the three proposed accesses to the development. Synchro© Version 9 was used to analyze the study intersection for the proposed trip conditions according to methods put forth by the Transportation Research Board's **Highway Capacity Manual** (**HCM 2010**).

The Level of Service (LOS) of an intersection ranges from A to F where LOS A has a low vehicular delay indicating smooth free-flowing traffic. LOS F has a high vehicular delay and indicates the worst-case scenario with high congestion and a complete breakdown of traffic flow. Although LOS A through C are the desired levels, LOS D is considered acceptable in urban conditions. Traffic conditions with LOS of E or F are generally deemed unacceptable and represent significant travel delay, increased accident potential, and inefficient motor vehicle operation. Table 2 shows the relation between LOS and vehicular delay for signalized and unsignalized intersections.

Table 2 - Signalized and Unsignalized intersection LOS and Delay Parameters

Level of Service (LOS)	Vehicular Delay (seconds/vehicle)	
	Signalized Intersection	Stop Controlled Approach
A	0.0 ≤10.0	0.0 < 10.0
B	>10.0 ≤ 20.0	> 10.0 < 15.0
C	> 20.0 ≤ 35.0	> 15.0 < 25.0
D	> 35.0 ≤ 55.0	> 25.0 < 35.0
E	> 55.0 ≤ 80.0	> 35.0 < 50.0
F	> 80.0	> 50.0

The Existing, Background and Future traffic volumes at each of the study area intersections and the three proposed accesses, were input into the Synchro Software. The levels of service at each of the turning movements can be seen in the following tables.

Table 3 – 2018 Existing Level of Service

2018 Existing Traffic LOS (Delay)					
1: Main Street & Vineyard Loop Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(5)**	A(0)	A(2)	C(17)	B(11)
PM Peak Hour	**A(5)**	A(0)	A(2)	C(18)	A(9)
2: Main Street & Vineyard Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(6)**	A(3)	A(1)	B(13)	B(10)
PM Peak Hour	**A(5)**	A(1)	A(3)	B(12)	B(10)

Table 4 – 2020 Background Level of Service

2020 Background Traffic LOS (Delay)					
1: Main Street & Vineyard Loop Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(6)**	A(0)	A(2)	C(19)	B(11)
PM Peak Hour	**A(5)**	A(0)	A(2)	C(20)	A(9)
2: Main Street & Vineyard Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(6)**	A(3)	A(1)	B(13)	B(11)
PM Peak Hour	**A(6)**	A(1)	A(3)	B(12)	B(10)

Table 5 – 2025 Background Level of Service

2025 Background Traffic LOS (Delay)					
1: Main Street & Vineyard Loop Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(6)**	A(0)	A(2)	C(23)	B(11)
PM Peak Hour	**A(6)**	A(0)	A(2)	C(24)	A(9)
2: Main Street & Vineyard Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(6)**	A(3)	A(1)	B(14)	B(11)
PM Peak Hour	**A(6)**	A(1)	A(3)	B(13)	B(11)

Table 6 – 2020 Background with Project Level of Service

2020 Background with Project Traffic LOS (Delay)					
1: Main Street & Vineyard Loop Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(8)**	A(0)	A(2)	D(28)	B(12)
PM Peak Hour	**A(6)**	A(1)	A(2)	D(28)	B(10)
2: Main Street & Vineyard Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(8)**	A(3)	A(1)	C(18)	B(11)
PM Peak Hour	**A(6)**	A(3)	A(3)	B(14)	B(11)

Table 7 – 2025 Background with Project Level of Service

2025 Background with Project Traffic LOS (Delay)					
1: Main Street & Vineyard Loop Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**B(11)**	A(0)	A(2)	E(42)	B(12)
PM Peak Hour	**A(7)**	A(1)	A(2)	E(37)	B(10)
2: Main Street & Vineyard Road					
	Overall Intersection LOS	**Northbound**	**Southbound**	**Eastbound**	**Westbound**
AM Peak Hour	**A(9)**	A(3)	A(1)	C(19)	B(11)
PM Peak Hour	**A(6)**	A(1)	A(3)	B(14)	B(11)

8.0 Recommendations

Based on the information presented in this report, the following improvements are necessary as part of this development. The following recommendations are made to accommodate the new site accesses.

Main Street and Vineyard Loop Road:

Currently this two-way stop-controlled intersection functions at an overall level of service of "A" under both the AM and PM peak hours. All northbound, southbound, eastbound and westbound movements at this intersection function at an acceptable Level of Service "C" or better. By applying the future growth rate to the existing traffic volumes, all movements in the 2020 and 2025 Background scenario at this intersection will continue to function at an acceptable LOS "C" or better. With the addition of the Vineyard Shores Development in 2020, all movements at this intersection will continue to function at an acceptable level of service "D" with the overall level of service at the intersection still functioning at an "A". In 2025, with the addition of the Vineyard Shores Development the overall level of service will continue to function at a "B" or better and all movements will function at a level of service "B" except the eastbound movement which will function at a level "E" which is acceptable in the Future Year scenarios. This intersection will continue to function at an acceptable level of service under all study year scenarios and no additional improvements to this intersection are necessary with the addition of the Vineyard Shores Development.

Main Street and Vineyard Road:

Under the existing conditions, all movements at the Main Street and Vineyard Road intersection currently function at an acceptable level of service "B" or better with an overall level of service "A". In the 2020 and 2025 Background Conditions, this intersection will continue to function at an overall level of service "A" and a level of service "B" or better at all movements. With the addition of the Vineyard Shores Development, under the 2020 Background with Project Conditions, this intersection will continue to function at an overall level of service "A" and each movement will

function with a level of service “C” or better. In 2025 with the addition of the Vineyard Shores Development, all movements will continue to function at an acceptable level of service “C” or better and the overall level of service will remain an “A”. No additional improvements are needed at this intersection with the addition of the Vineyard Shores Development.

North Access (Access #3) and Vineyard Road:

The Vineyard Shores Development will realign Vineyard Road to run through the center of the development and continue north to tie back into the existing alignment north of this development. With a minimal amount of traffic using this portion of Vineyard Road and no existing intersections, traffic will experience no delay. Vineyard Road shall be designed and constructed to meet City Standards.

9.0 Appendix

Existing Traffic Counts

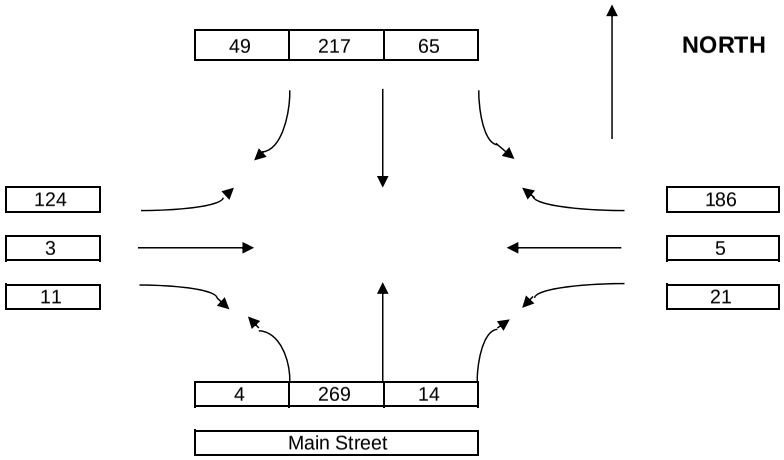
TURNING MOVEMENT COUNT SUMMARY

MICHAEL BAKER INTERNATIONAL

INTERSECTION:	Vineyard Loop Road & Main Street
N-S STREET:	**Main Street**
E-W STREET:	**Vineyard Loop**
MBI PROJ. NO.:	**168**
COUNT DATE:	**30-Aug-18**
NOTES:	
COUNT TIME:	
FROM:	**7:00 AM**
TO:	**9:00 AM**

PK HR VOLUME:	968
PHF:	0.91
PEAK HOUR:	
FROM:	TO:
7:45 AM	8:45 AM

AM PEAK HOUR VOLUMES



COUNT DATA INPUT:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
7:00 AM	7:15 AM	2	26	0	14	0	0	0	18	6	0	1	13	80
7:15 AM	7:30 AM	3	44	1	38	1	5	13	29	15	4	1	36	190
7:30 AM	7:45 AM	1	53	2	42	1	3	10	42	6	1	0	57	218
7:45 AM	8:00 AM	0	64	4	38	1	4	11	62	11	8	1	42	246
8:00 AM	8:15 AM	1	71	3	36	1	3	23	64	9	4	1	49	265
8:15 AM	8:30 AM	1	65	4	28	1	1	16	52	9	4	0	46	227
8:30 AM	8:45 AM	2	69	3	22	0	3	15	39	20	5	3	49	230
8:45 AM	9:00 AM	2	47	3	31	1	4	13	37	8	1	0	47	194

HOURLY TOTALS:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
7:00 AM	8:00 AM	6	187	7	132	3	12	34	151	38	13	3	148	734
7:15 AM	8:15 AM	5	232	10	154	4	15	57	197	41	17	3	184	919
7:30 AM	8:30 AM	3	253	13	144	4	11	60	220	35	17	2	194	956
7:45 AM	8:45 AM	4	269	14	124	3	11	65	217	49	21	5	186	968
8:00 AM	9:00 AM	6	252	13	117	3	11	67	192	46	14	4	191	916

NOTE PHF IS BASED ON 15 MIN. PEAK WITHIN THE PEAK HOUR.

TURNING MOVEMENT COUNT SUMMARY

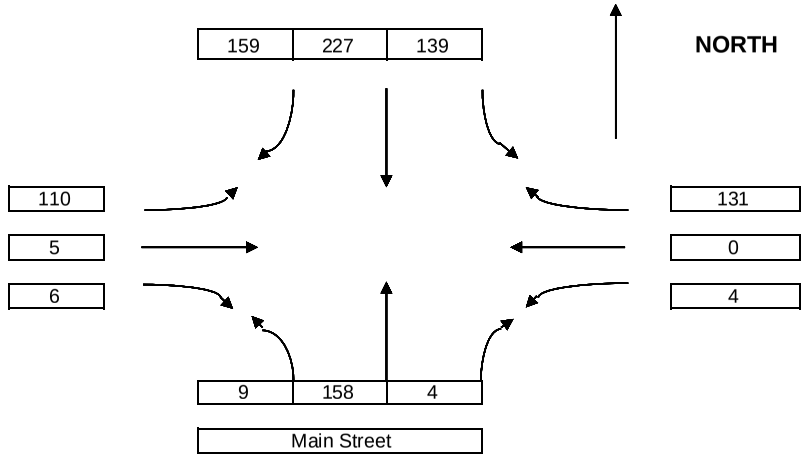
MICHAEL BAKER INTERNATIONAL

INTERSECTION:	Vineyard Loop Road & Main Street
N-S STREET:	**Main Street**
E-W STREET:	**Vineyard Loop**
MBI PROJ. NO.:	**168**
COUNT DATE:	**30-Aug-18**
NOTES:	
COUNT TIME:	
FROM:	**4:00 PM**
TO:	**6:00 PM**

PK HR VOLUME:	952
PHF:	0.92
PEAK HOUR:	
FROM:	TO:
5:00 PM	6:00 PM

Vineyard Loop

PM PEAK HOUR VOLUMES



COUNT DATA INPUT:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
4:00 PM	4:15 PM	9	42	0	9	1	0	39	32	22	3	1	28	186
4:15 PM	4:30 PM	4	47	2	22	1	2	45	46	24	3	0	26	222
4:30 PM	4:45 PM	3	31	2	26	1	1	42	56	28	1	1	26	218
4:45 PM	5:00 PM	0	32	2	22	1	0	45	55	34	5	1	31	228
5:00 PM	5:15 PM	2	32	1	23	3	2	39	56	31	3	0	32	224
5:15 PM	5:30 PM	2	47	0	27	1	1	37	66	46	0	0	31	258
5:30 PM	5:45 PM	2	40	2	28	0	1	32	53	45	0	0	38	241
5:45 PM	6:00 PM	3	39	1	32	1	2	31	52	37	1	0	30	229

HOURLY TOTALS:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
4:00 PM	5:00 PM	16	152	6	79	4	3	171	189	108	12	3	111	854
4:15 PM	5:15 PM	9	142	7	93	6	5	171	213	117	12	2	115	892
4:30 PM	5:30 PM	7	142	5	98	6	4	163	233	139	9	2	120	928
4:45 PM	5:45 PM	6	151	5	100	5	4	153	230	156	8	1	132	951
5:00 PM	6:00 PM	9	158	4	110	5	6	139	227	159	4	0	131	952

NOTE PHF IS BASED ON 15 MIN. PEAK WITHIN THE PEAK HOUR.

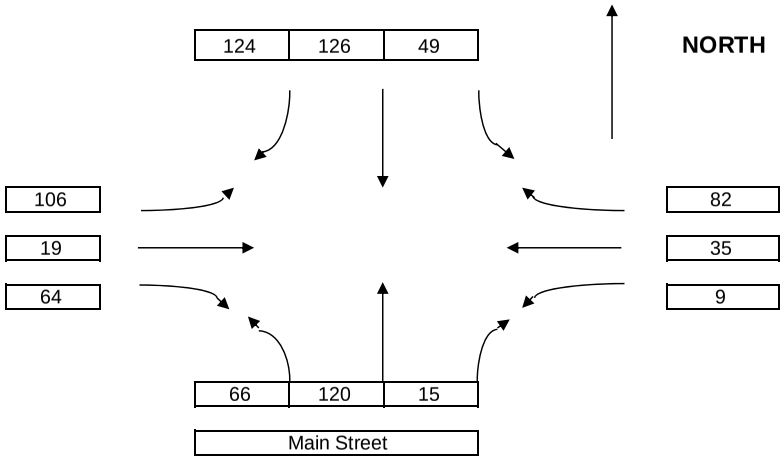
TURNING MOVEMENT COUNT SUMMARY

MICHAEL BAKER INTERNATIONAL

INTERSECTION:	Vineyard Road & Main Street
N-S STREET:	**Main Street**
E-W STREET:	**Vineyard**
MBI PROJ. NO.:	
COUNT DATE:	**30-Aug-18**
NOTES:	
COUNT TIME:	
FROM:	**7:00 AM**
TO:	**9:00 AM**

PK HR VOLUME:	815
PHF:	0.74
PEAK HOUR:	
FROM:	TO:
7:45 AM	8:45 AM

AM PEAK HOUR VOLUMES



COUNT DATA INPUT:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
7:00 AM	7:15 AM	1	19	0	4	0	0	10	17	2	0	1	16	70
7:15 AM	7:30 AM	1	23	0	4	0	2	9	15	12	1	2	20	89
7:30 AM	7:45 AM	5	30	3	10	4	2	13	22	11	3	6	18	127
7:45 AM	8:00 AM	27	33	2	32	3	15	11	24	54	4	9	19	233
8:00 AM	8:15 AM	28	32	4	33	9	31	18	38	46	0	17	18	274
8:15 AM	8:30 AM	9	27	2	30	6	13	10	38	16	2	6	21	180
8:30 AM	8:45 AM	2	28	7	11	1	5	10	26	8	3	3	24	128
8:45 AM	9:00 AM	5	31	3	2	1	2	16	26	5	0	3	22	116

HOURLY TOTALS:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
7:00 AM	8:00 AM	34	105	5	50	7	19	43	78	79	8	18	73	519
7:15 AM	8:15 AM	61	118	9	79	16	50	51	99	123	8	34	75	723
7:30 AM	8:30 AM	69	122	11	105	22	61	52	122	127	9	38	76	814
7:45 AM	8:45 AM	66	120	15	106	19	64	49	126	124	9	35	82	815
8:00 AM	9:00 AM	44	118	16	76	17	51	54	128	75	5	29	85	698

NOTE PHF IS BASED ON 15 MIN. PEAK WITHIN THE PEAK HOUR.

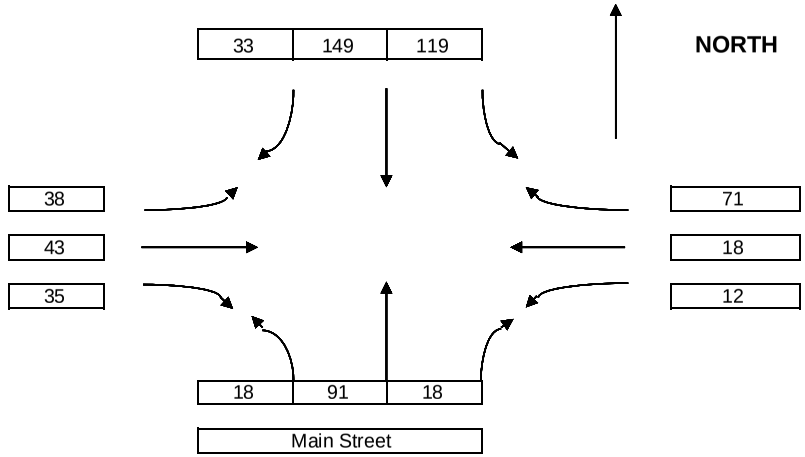
TURNING MOVEMENT COUNT SUMMARY

MICHAEL BAKER INTERNATIONAL

INTERSECTION:	Vineyard Road & Main Street
N-S STREET:	**Main Street**
E-W STREET:	**Vineyard**
MBI PROJ. NO.:	**0**
COUNT DATE:	**30-Aug-18**
NOTES:	
COUNT TIME:	
FROM:	**4:00 PM**
TO:	**6:00 PM**

PK HR VOLUME:	645
PHF:	0.86
PEAK HOUR:	
FROM:	TO:
5:00 PM	6:00 PM

PM PEAK HOUR VOLUMES



COUNT DATA INPUT:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
4:00 PM	4:15 PM	5	23	3	18	1	5	29	24	10	1	2	24	145
4:15 PM	4:30 PM	5	27	4	8	2	5	14	30	5	7	0	16	123
4:30 PM	4:45 PM	3	20	1	6	5	4	26	38	8	0	2	17	130
4:45 PM	5:00 PM	0	19	2	5	6	4	30	36	3	0	1	12	118
5:00 PM	5:15 PM	2	25	2	6	8	8	33	37	5	2	2	12	142
5:15 PM	5:30 PM	6	28	3	14	16	15	25	41	5	3	0	18	174
5:30 PM	5:45 PM	2	14	4	11	13	7	25	32	4	2	8	19	141
5:45 PM	6:00 PM	8	24	9	7	6	5	36	39	19	5	8	22	188

HOURLY TOTALS:

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL
FROM:	TO:	L	T	R	L	T	R	L	T	R	L	T	R	VOLUMES
4:00 PM	5:00 PM	13	89	10	37	14	18	99	128	26	8	5	69	516
4:15 PM	5:15 PM	10	91	9	25	21	21	103	141	21	9	5	57	513
4:30 PM	5:30 PM	11	92	8	31	35	31	114	152	21	5	5	59	564
4:45 PM	5:45 PM	10	86	11	36	43	34	113	146	17	7	11	61	575
5:00 PM	6:00 PM	18	91	18	38	43	35	119	149	33	12	18	71	645

NOTE PHF IS BASED ON 15 MIN. PEAK WITHIN THE PEAK HOUR.

Trip Generation Report

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: Vineyard Shores

Open Date: 9/5/2018
Analysis Date: 9/5/2018

ITE	Land Use		Weekday Average Daily Trips *	Enter	Exit	Total	Weekday AM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total	Weekday PM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total
210	SFHOUSE 1			72	71	143		3	8	11		9	6	15
	15	Dwelling Units												
230	CONDO 2			785	784	1569		20	99	119		94	46	140
	270	Dwelling Units												
230	CONDO 1			1162	1162	2324		30	146	176		139	69	208
	400	Dwelling Units												
Unadjusted Volume				2019	2017	4036		53	253	306		242	121	363
Internal Capture Trips				0	0	0		0	0	0		0	0	0
Pass-By Trips				0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets				2019	2017	4036		53	253	306		242	121	363

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

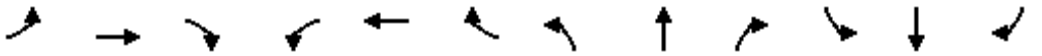
Traffic Analysis Reports

2018 Existing Traffic Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	3	11	21	5	186	4	269	14	65	217	49
Future Volume (Veh/h)	124	3	11	21	5	186	4	269	14	65	217	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	135	3	12	23	5	202	4	292	15	71	236	53
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	636	693	118	568	731	146	289			307		
vC1, stage 1 conf vol	378	378		300	300							
vC2, stage 2 conf vol	258	315		268	431							
vCu, unblocked vol	636	693	118	568	731	146	289			307		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	68	99	99	96	99	77	100			94		
cM capacity (veh/h)	423	489	912	559	488	875	1270			1250		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	135	15	23	207	4	146	146	15	71	118	118	53
Volume Left	135	0	23	0	4	0	0	0	71	0	0	0
Volume Right	0	12	0	202	0	0	0	15	0	0	0	53
cSH	423	1139	559	896	1270	1700	1700	1700	1250	1700	1700	1700
Volume to Capacity	0.32	0.01	0.04	0.23	0.00	0.09	0.09	0.01	0.06	0.07	0.07	0.03
Queue Length 95th (ft)	34	1	3	22	0	0	0	0	5	0	0	0
Control Delay (s)	17.4	9.7	11.7	10.4	7.8	0.0	0.0	0.0	8.1	0.0	0.0	0.0
Lane LOS	C	A	B	B	A				A			
Approach Delay (s)	16.7		10.5		0.1				1.6			
Approach LOS	C		B									

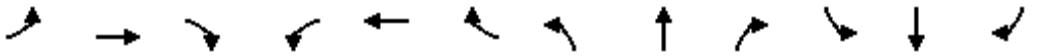
Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	35.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	19	64	9	35	82	66	120	15	49	126	124
Future Volume (Veh/h)	106	19	64	9	35	82	66	120	15	49	126	124
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	115	21	70	10	38	89	72	130	16	53	137	135
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	516	533	68	494	652	65	272			146		
vC1, stage 1 conf vol	243	243		274	274							
vC2, stage 2 conf vol	272	290		220	378							
vCu, unblocked vol	516	533	68	494	652	65	272			146		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	76	96	93	98	92	91	94			96		
cM capacity (veh/h)	487	534	981	529	478	986	1288			1434		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	115	91	10	127	72	65	65	16	53	68	68	135
Volume Left	115	0	10	0	72	0	0	0	53	0	0	0
Volume Right	0	70	0	89	0	0	0	16	0	0	0	135
cSH	487	1275	529	1406	1288	1700	1700	1700	1434	1700	1700	1700
Volume to Capacity	0.24	0.07	0.02	0.09	0.06	0.04	0.04	0.01	0.04	0.04	0.04	0.08
Queue Length 95th (ft)	23	6	1	7	4	0	0	0	3	0	0	0
Control Delay (s)	14.7	9.7	11.9	10.3	8.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
Lane LOS	B	A	B	B	A				A			
Approach Delay (s)	12.5		10.4		2.6				1.2			
Approach LOS	B		B									

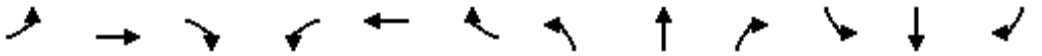
Intersection Summary					
Average Delay	5.6				
Intersection Capacity Utilization	29.7%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	5	6	4	1	131	9	158	4	139	227	159
Future Volume (Veh/h)	110	5	6	4	1	131	9	158	4	139	227	159
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	5	7	4	1	142	10	172	4	151	247	173
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	726	745	124	624	914	86	420			176		
vC1, stage 1 conf vol	549	549		192	192							
vC2, stage 2 conf vol	178	196		432	722							
vCu, unblocked vol	726	745	124	624	914	86	420			176		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	99	99	99	100	85	99			89		
cM capacity (veh/h)	384	422	904	466	357	956	1136			1398		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	120	12	4	143	10	86	86	4	151	124	124	173
Volume Left	120	0	4	0	10	0	0	0	151	0	0	0
Volume Right	0	7	0	142	0	0	0	4	0	0	0	173
cSH	384	1013	466	962	1136	1700	1700	1700	1398	1700	1700	1700
Volume to Capacity	0.31	0.01	0.01	0.15	0.01	0.05	0.05	0.00	0.11	0.07	0.07	0.10
Queue Length 95th (ft)	33	1	1	13	1	0	0	0	9	0	0	0
Control Delay (s)	18.6	10.9	12.8	9.5	8.2	0.0	0.0	0.0	7.9	0.0	0.0	0.0
Lane LOS	C	B	B	A	A				A			
Approach Delay (s)	17.9		9.6		0.4				2.1			
Approach LOS	C		A									

Intersection Summary					
Average Delay	4.9				
Intersection Capacity Utilization	34.8%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	43	35	12	18	71	18	91	18	119	149	33
Future Volume (Veh/h)	38	43	35	12	18	71	18	91	18	119	149	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	47	38	13	20	77	20	99	20	129	162	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	558	579	81	520	595	50	198			119		
vC1, stage 1 conf vol	420	420		139	139							
vC2, stage 2 conf vol	138	159		382	456							
vCu, unblocked vol	558	579	81	520	595	50	198			119		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	90	96	97	96	92	99			91		
cM capacity (veh/h)	479	494	963	454	477	1008	1372			1467		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	41	85	13	97	20	50	50	20	129	81	81	36
Volume Left	41	0	13	0	20	0	0	0	129	0	0	0
Volume Right	0	38	0	77	0	0	0	20	0	0	0	36
cSH	479	893	454	1270	1372	1700	1700	1700	1467	1700	1700	1700
Volume to Capacity	0.09	0.10	0.03	0.08	0.01	0.03	0.03	0.01	0.09	0.05	0.05	0.02
Queue Length 95th (ft)	7	8	2	6	1	0	0	0	7	0	0	0
Control Delay (s)	13.2	11.2	13.2	9.7	7.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Lane LOS	B	B	B	A	A				A			
Approach Delay (s)	11.9		10.1		1.1				3.0			
Approach LOS	B		B									

Intersection Summary					
Average Delay	5.3				
Intersection Capacity Utilization	28.7%	ICU Level of Service		A	
Analysis Period (min)	15				

2020 Background Traffic Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	3	12	23	5	201	4	291	15	70	235	53
Future Volume (Veh/h)	134	3	12	23	5	201	4	291	15	70	235	53
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	146	3	13	25	5	218	4	316	16	76	255	58
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	684	747	128	612	789	158	313			332		
vC1, stage 1 conf vol	407	407		324	324							
vC2, stage 2 conf vol	278	340		288	465							
vCu, unblocked vol	684	747	128	612	789	158	313			332		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	63	99	99	95	99	75	100			94		
cM capacity (veh/h)	392	467	899	536	467	859	1244			1224		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	146	16	25	223	4	158	158	16	76	128	128	58
Volume Left	146	0	25	0	4	0	0	0	76	0	0	0
Volume Right	0	13	0	218	0	0	0	16	0	0	0	58
cSH	392	1106	536	879	1244	1700	1700	1700	1224	1700	1700	1700
Volume to Capacity	0.37	0.01	0.05	0.25	0.00	0.09	0.09	0.01	0.06	0.07	0.07	0.03
Queue Length 95th (ft)	42	1	4	25	0	0	0	0	5	0	0	0
Control Delay (s)	19.5	9.8	12.0	10.7	7.9	0.0	0.0	0.0	8.1	0.0	0.0	0.0
Lane LOS	C	A	B	B	A				A			
Approach Delay (s)	18.6		10.8		0.1				1.6			
Approach LOS	C		B									

Intersection Summary					
Average Delay	5.6				
Intersection Capacity Utilization	37.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	21	69	10	38	89	71	130	16	53	136	134
Future Volume (Veh/h)	115	21	69	10	38	89	71	130	16	53	136	134
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	125	23	75	11	41	97	77	141	17	58	148	146
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	558	576	74	534	705	70	294			158		
vC1, stage 1 conf vol	264	264		295	295							
vC2, stage 2 conf vol	294	312		239	410							
vCu, unblocked vol	558	576	74	534	705	70	294			158		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	96	92	98	91	90	94			96		
cM capacity (veh/h)	456	512	973	500	454	978	1264			1419		

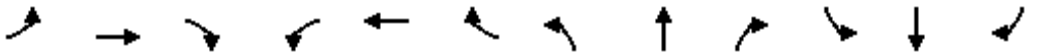
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	125	98	11	138	77	70	70	17	58	74	74	146
Volume Left	125	0	11	0	77	0	0	0	58	0	0	0
Volume Right	0	75	0	97	0	0	0	17	0	0	0	146
cSH	456	1271	500	1391	1264	1700	1700	1700	1419	1700	1700	1700
Volume to Capacity	0.27	0.08	0.02	0.10	0.06	0.04	0.04	0.01	0.04	0.04	0.04	0.09
Queue Length 95th (ft)	28	6	2	8	5	0	0	0	3	0	0	0
Control Delay (s)	15.9	9.8	12.4	10.5	8.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0
Lane LOS	C	A	B	B	A				A			
Approach Delay (s)	13.2		10.6		2.6				1.3			
Approach LOS	B		B									

Intersection Summary					
Average Delay	5.8				
Intersection Capacity Utilization	30.7%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	5	6	4	1	142	10	171	4	150	246	172
Future Volume (Veh/h)	119	5	6	4	1	142	10	171	4	150	246	172
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	129	5	7	4	1	154	11	186	4	163	267	187
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	786	805	134	674	988	93	454			190		
vC1, stage 1 conf vol	593	593		208	208							
vC2, stage 2 conf vol	192	212		466	780							
vCu, unblocked vol	786	805	134	674	988	93	454			190		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	64	99	99	99	100	84	99			88		
cM capacity (veh/h)	354	397	891	438	331	946	1103			1381		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	129	12	4	155	11	93	93	4	163	134	134	187
Volume Left	129	0	4	0	11	0	0	0	163	0	0	0
Volume Right	0	7	0	154	0	0	0	4	0	0	0	187
cSH	354	953	438	952	1103	1700	1700	1700	1381	1700	1700	1700
Volume to Capacity	0.36	0.01	0.01	0.16	0.01	0.05	0.05	0.00	0.12	0.08	0.08	0.11
Queue Length 95th (ft)	41	1	1	15	1	0	0	0	10	0	0	0
Control Delay (s)	20.9	11.2	13.3	9.6	8.3	0.0	0.0	0.0	8.0	0.0	0.0	0.0
Lane LOS	C	B	B	A	A				A			
Approach Delay (s)	20.0		9.7		0.5				2.1			
Approach LOS	C		A									

Intersection Summary					
Average Delay	5.1				
Intersection Capacity Utilization	36.3%	ICU Level of Service		A	
Analysis Period (min)	15				

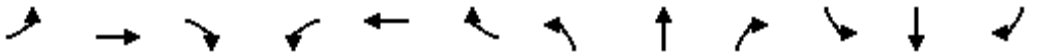


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	47	38	13	19	77	19	98	19	129	161	36
Future Volume (Veh/h)	41	47	38	13	19	77	19	98	19	129	161	36
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	51	41	14	21	84	21	107	21	140	175	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	603	625	88	562	643	54	214			128		
vC1, stage 1 conf vol	455	455		149	149							
vC2, stage 2 conf vol	148	170		414	494							
vCu, unblocked vol	603	625	88	562	643	54	214			128		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	89	96	97	95	92	98			90		
cM capacity (veh/h)	450	470	953	422	452	1002	1353			1456		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	45	92	14	105	21	54	54	21	140	88	88	39
Volume Left	45	0	14	0	21	0	0	0	140	0	0	0
Volume Right	0	41	0	84	0	0	0	21	0	0	0	39
cSH	450	849	422	1253	1353	1700	1700	1700	1456	1700	1700	1700
Volume to Capacity	0.10	0.11	0.03	0.08	0.02	0.03	0.03	0.01	0.10	0.05	0.05	0.02
Queue Length 95th (ft)	8	9	3	7	1	0	0	0	8	0	0	0
Control Delay (s)	13.9	11.5	13.8	9.8	7.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Lane LOS	B	B	B	A	A				A			
Approach Delay (s)	12.3		10.3		1.1				3.1			
Approach LOS	B		B									

Intersection Summary					
Average Delay	5.5				
Intersection Capacity Utilization	29.4%	ICU Level of Service		A	
Analysis Period (min)	15				

2025 Background Traffic Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	4	13	25	6	222	5	321	17	78	259	59
Future Volume (Veh/h)	148	4	13	25	6	222	5	321	17	78	259	59
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	161	4	14	27	7	241	5	349	18	85	282	64
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	760	829	141	679	875	174	346			367		
vC1, stage 1 conf vol	452	452		359	359							
vC2, stage 2 conf vol	308	377		320	516							
vCu, unblocked vol	760	829	141	679	875	174	346			367		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	53	99	98	95	98	71	100			93		
cM capacity (veh/h)	345	435	881	500	435	839	1210			1188		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	161	18	27	248	5	174	174	18	85	141	141	64
Volume Left	161	0	27	0	5	0	0	0	85	0	0	0
Volume Right	0	14	0	241	0	0	0	18	0	0	0	64
cSH	345	1133	500	863	1210	1700	1700	1700	1188	1700	1700	1700
Volume to Capacity	0.47	0.02	0.05	0.29	0.00	0.10	0.10	0.01	0.07	0.08	0.08	0.04
Queue Length 95th (ft)	59	1	4	30	0	0	0	0	6	0	0	0
Control Delay (s)	24.2	10.1	12.6	11.1	8.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0
Lane LOS	C	B	B	B	A				A			
Approach Delay (s)	22.8		11.2		0.1				1.6			
Approach LOS	C		B									

Intersection Summary					
Average Delay	6.3				
Intersection Capacity Utilization	40.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	23	76	11	42	98	79	143	18	59	150	148
Future Volume (Veh/h)	127	23	76	11	42	98	79	143	18	59	150	148
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	138	25	83	12	46	107	86	155	20	64	163	161
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	617	638	82	590	779	78	324			175		
vC1, stage 1 conf vol	291	291		327	327							
vC2, stage 2 conf vol	326	347		264	452							
vCu, unblocked vol	617	638	82	590	779	78	324			175		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	67	95	91	97	89	89	93			95		
cM capacity (veh/h)	413	481	962	462	420	968	1233			1399		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	138	108	12	153	86	78	78	20	64	82	82	161
Volume Left	138	0	12	0	86	0	0	0	64	0	0	0
Volume Right	0	83	0	107	0	0	0	20	0	0	0	161
cSH	413	1252	462	1384	1233	1700	1700	1700	1399	1700	1700	1700
Volume to Capacity	0.33	0.09	0.03	0.11	0.07	0.05	0.05	0.01	0.05	0.05	0.05	0.09
Queue Length 95th (ft)	36	7	2	9	6	0	0	0	4	0	0	0
Control Delay (s)	18.0	10.0	13.0	10.8	8.1	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Lane LOS	C	A	B	B	A				A			
Approach Delay (s)	14.5		11.0		2.7				1.3			
Approach LOS	B		B									

Intersection Summary					
Average Delay	6.2				
Intersection Capacity Utilization	32.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	6	7	5	1	156	11	189	5	166	271	190
Future Volume (Veh/h)	131	6	7	5	1	156	11	189	5	166	271	190
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	142	7	8	5	1	170	12	205	5	180	295	207
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	867	889	148	744	1091	102	502			210		
vC1, stage 1 conf vol	655	655		229	229							
vC2, stage 2 conf vol	212	234		515	862							
vCu, unblocked vol	867	889	148	744	1091	102	502			210		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	55	98	99	99	100	82	99			87		
cM capacity (veh/h)	316	364	873	398	296	933	1059			1358		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	142	15	5	171	12	102	102	5	180	148	148	207
Volume Left	142	0	5	0	12	0	0	0	180	0	0	0
Volume Right	0	8	0	170	0	0	0	5	0	0	0	207
cSH	316	780	398	938	1059	1700	1700	1700	1358	1700	1700	1700
Volume to Capacity	0.45	0.02	0.01	0.18	0.01	0.06	0.06	0.00	0.13	0.09	0.09	0.12
Queue Length 95th (ft)	56	1	1	17	1	0	0	0	11	0	0	0
Control Delay (s)	25.4	11.9	14.2	9.8	8.4	0.0	0.0	0.0	8.1	0.0	0.0	0.0
Lane LOS	D	B	B	A	A				A			
Approach Delay (s)	24.1		9.9		0.5				2.1			
Approach LOS	C		A									

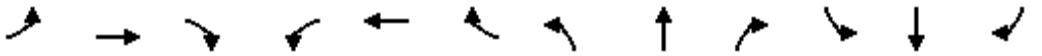
Intersection Summary					
Average Delay	5.7				
Intersection Capacity Utilization	38.3%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	51	42	14	21	85	21	109	21	142	178	39
Future Volume (Veh/h)	45	51	42	14	21	85	21	109	21	142	178	39
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	55	46	15	23	92	23	118	23	154	193	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	664	688	96	619	707	59	235			141		
vC1, stage 1 conf vol	501	501		164	164							
vC2, stage 2 conf vol	162	187		455	543							
vCu, unblocked vol	664	688	96	619	707	59	235			141		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	88	95	96	95	91	98			89		
cM capacity (veh/h)	414	441	941	382	422	994	1329			1440		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	49	101	15	115	23	59	59	23	154	96	96	42
Volume Left	49	0	15	0	23	0	0	0	154	0	0	0
Volume Right	0	46	0	92	0	0	0	23	0	0	0	42
cSH	414	810	382	1243	1329	1700	1700	1700	1440	1700	1700	1700
Volume to Capacity	0.12	0.12	0.04	0.09	0.02	0.03	0.03	0.01	0.11	0.06	0.06	0.02
Queue Length 95th (ft)	10	11	3	8	1	0	0	0	9	0	0	0
Control Delay (s)	14.9	11.9	14.8	10.0	7.8	0.0	0.0	0.0	7.8	0.0	0.0	0.0
Lane LOS	B	B	B	A	A				A			
Approach Delay (s)	12.9		10.6		1.1				3.1			
Approach LOS	B		B									

Intersection Summary					
Average Delay	5.6				
Intersection Capacity Utilization	30.4%	ICU Level of Service		A	
Analysis Period (min)	15				

2020 Background with Project Traffic Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	8	30	23	11	201	8	374	15	70	252	67
Future Volume (Veh/h)	200	8	30	23	11	201	8	374	15	70	252	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	9	33	25	12	218	9	407	16	76	274	73
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	762	867	137	735	924	204	347			423		
vC1, stage 1 conf vol	426	426		425	425							
vC2, stage 2 conf vol	336	441		310	499							
vCu, unblocked vol	762	867	137	735	924	204	347			423		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	37	98	96	95	97	73	99			93		
cM capacity (veh/h)	346	423	886	467	426	803	1209			1133		

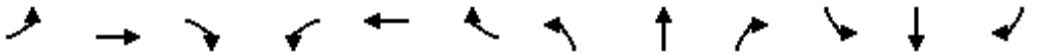
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	217	42	25	230	9	204	204	16	76	137	137	73
Volume Left	217	0	25	0	9	0	0	0	76	0	0	0
Volume Right	0	33	0	218	0	0	0	16	0	0	0	73
cSH	346	1128	467	848	1209	1700	1700	1700	1133	1700	1700	1700
Volume to Capacity	0.63	0.04	0.05	0.27	0.01	0.12	0.12	0.01	0.07	0.08	0.08	0.04
Queue Length 95th (ft)	101	3	4	28	1	0	0	0	5	0	0	0
Control Delay (s)	31.4	10.2	13.1	11.3	8.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0
Lane LOS	D	B	B	B	A				A			
Approach Delay (s)	27.9		11.5		0.2				1.5			
Approach LOS	D		B									

Intersection Summary				
Average Delay	7.9			
Intersection Capacity Utilization	43.9%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	34	112	10	41	105	80	156	16	53	136	151
Future Volume (Veh/h)	198	34	112	10	41	105	80	156	16	53	136	151
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	215	37	122	11	45	114	87	170	17	58	148	164
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	602	625	74	614	772	85	312			187		
vC1, stage 1 conf vol	264	264		344	344							
vC2, stage 2 conf vol	338	361		270	428							
vCu, unblocked vol	602	625	74	614	772	85	312			187		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	48	92	87	97	89	88	93			96		
cM capacity (veh/h)	410	484	973	430	428	957	1245			1385		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	215	159	11	159	87	85	85	17	58	74	74	164
Volume Left	215	0	11	0	87	0	0	0	58	0	0	0
Volume Right	0	122	0	114	0	0	0	17	0	0	0	164
cSH	410	1268	430	1335	1245	1700	1700	1700	1385	1700	1700	1700
Volume to Capacity	0.52	0.13	0.03	0.12	0.07	0.05	0.05	0.01	0.04	0.04	0.04	0.10
Queue Length 95th (ft)	74	11	2	10	6	0	0	0	3	0	0	0
Control Delay (s)	23.0	10.1	13.6	10.7	8.1	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Lane LOS	C	B	B	B	A				A			
Approach Delay (s)	17.5		10.9		2.6				1.2			
Approach LOS	C		B									

Intersection Summary					
Average Delay	8.1				
Intersection Capacity Utilization	35.8%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	7	14	4	5	142	27	211	4	150	326	235
Future Volume (Veh/h)	150	7	14	4	5	142	27	211	4	150	326	235
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	163	8	15	4	5	154	29	229	4	163	354	255
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	932	971	177	802	1222	114	609			233		
vC1, stage 1 conf vol	680	680		287	287							
vC2, stage 2 conf vol	252	291		514	935							
vCu, unblocked vol	932	971	177	802	1222	114	609			233		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	46	98	98	99	98	83	97			88		
cM capacity (veh/h)	302	348	835	378	260	916	966			1332		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	163	23	4	159	29	114	114	4	163	177	177	255
Volume Left	163	0	4	0	29	0	0	0	163	0	0	0
Volume Right	0	15	0	154	0	0	0	4	0	0	0	255
cSH	302	1001	378	946	966	1700	1700	1700	1332	1700	1700	1700
Volume to Capacity	0.54	0.02	0.01	0.17	0.03	0.07	0.07	0.00	0.12	0.10	0.10	0.15
Queue Length 95th (ft)	75	2	1	15	2	0	0	0	10	0	0	0
Control Delay (s)	30.1	11.5	14.6	10.0	8.8	0.0	0.0	0.0	8.1	0.0	0.0	0.0
Lane LOS	D	B	B	B	A				A			
Approach Delay (s)	27.8		10.1		1.0				1.7			
Approach LOS	D		B									

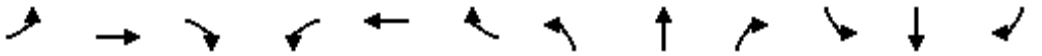
Intersection Summary					
Average Delay	6.1				
Intersection Capacity Utilization	39.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	53	59	13	31	77	60	98	19	129	161	116
Future Volume (Veh/h)	81	53	59	13	31	77	60	98	19	129	161	116
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	58	64	14	34	84	65	107	21	140	175	126
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	698	713	88	666	818	54	301			128		
vC1, stage 1 conf vol	455	455		237	237							
vC2, stage 2 conf vol	242	258		428	581							
vCu, unblocked vol	698	713	88	666	818	54	301			128		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	87	93	96	91	92	95			90		
cM capacity (veh/h)	396	434	953	352	368	1002	1257			1456		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	88	122	14	118	65	54	54	21	140	88	88	126
Volume Left	88	0	14	0	65	0	0	0	140	0	0	0
Volume Right	0	64	0	84	0	0	0	21	0	0	0	126
cSH	396	913	352	1279	1257	1700	1700	1700	1456	1700	1700	1700
Volume to Capacity	0.22	0.13	0.04	0.09	0.05	0.03	0.03	0.01	0.10	0.05	0.05	0.07
Queue Length 95th (ft)	21	12	3	8	4	0	0	0	8	0	0	0
Control Delay (s)	16.7	11.7	15.7	10.9	8.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Lane LOS	C	B	C	B	A				A			
Approach Delay (s)	13.8		11.4		2.7				2.5			
Approach LOS	B		B									

Intersection Summary					
Average Delay	6.1				
Intersection Capacity Utilization	31.6%	ICU Level of Service		A	
Analysis Period (min)	15				

2025 Background with Project Traffic Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	9	31	25	12	222	9	404	17	78	276	73
Future Volume (Veh/h)	214	9	31	25	12	222	9	404	17	78	276	73
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	233	10	34	27	13	241	10	439	18	85	300	79
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	836	947	150	801	1008	220	379			457		
vC1, stage 1 conf vol	470	470		459	459							
vC2, stage 2 conf vol	366	477		342	549							
vCu, unblocked vol	836	947	150	801	1008	220	379			457		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	23	97	96	94	97	69	99			92		
cM capacity (veh/h)	302	394	870	437	398	785	1176			1100		

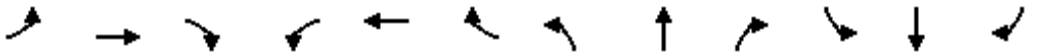
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	233	44	27	254	10	220	220	18	85	150	150	79
Volume Left	233	0	27	0	10	0	0	0	85	0	0	0
Volume Right	0	34	0	241	0	0	0	18	0	0	0	79
cSH	302	1125	437	827	1176	1700	1700	1700	1100	1700	1700	1700
Volume to Capacity	0.77	0.04	0.06	0.31	0.01	0.13	0.13	0.01	0.08	0.09	0.09	0.05
Queue Length 95th (ft)	149	3	5	33	1	0	0	0	6	0	0	0
Control Delay (s)	47.7	10.5	13.8	11.8	8.1	0.0	0.0	0.0	8.5	0.0	0.0	0.0
Lane LOS	E	B	B	B	A				A			
Approach Delay (s)	41.8		11.9		0.2				1.6			
Approach LOS	E		B									

Intersection Summary				
Average Delay	10.6			
Intersection Capacity Utilization	46.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	36	119	11	42	116	79	172	18	59	150	165
Future Volume (Veh/h)	210	36	119	11	42	116	79	172	18	59	150	165
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	228	39	129	12	46	126	86	187	20	64	163	179
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	642	670	82	652	829	94	342			207		
vC1, stage 1 conf vol	291	291		359	359							
vC2, stage 2 conf vol	352	379		294	470							
vCu, unblocked vol	642	670	82	652	829	94	342			207		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	41	92	87	97	89	87	93			95		
cM capacity (veh/h)	386	465	962	406	406	945	1214			1361		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	228	168	12	172	86	94	94	20	64	82	82	179
Volume Left	228	0	12	0	86	0	0	0	64	0	0	0
Volume Right	0	129	0	126	0	0	0	20	0	0	0	179
cSH	386	1253	406	1290	1214	1700	1700	1700	1361	1700	1700	1700
Volume to Capacity	0.59	0.13	0.03	0.13	0.07	0.06	0.06	0.01	0.05	0.05	0.05	0.11
Queue Length 95th (ft)	91	12	2	11	6	0	0	0	4	0	0	0
Control Delay (s)	26.9	10.3	14.1	10.9	8.2	0.0	0.0	0.0	7.8	0.0	0.0	0.0
Lane LOS	D	B	B	B	A				A			
Approach Delay (s)	19.9		11.1		2.4				1.2			
Approach LOS	C		B									

Intersection Summary					
Average Delay	8.7				
Intersection Capacity Utilization	36.8%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	8	15	5	5	156	28	229	5	166	351	253
Future Volume (Veh/h)	162	8	15	5	5	156	28	229	5	166	351	253
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	176	9	16	5	5	170	30	249	5	180	382	275
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1014	1056	191	872	1326	124	657			254		
vC1, stage 1 conf vol	742	742		309	309							
vC2, stage 2 conf vol	272	314		564	1017							
vCu, unblocked vol	1014	1056	191	872	1326	124	657			254		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	34	97	98	99	98	81	97			86		
cM capacity (veh/h)	268	318	818	342	230	903	926			1308		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	176	25	5	175	30	124	124	5	180	191	191	275
Volume Left	176	0	5	0	30	0	0	0	180	0	0	0
Volume Right	0	16	0	170	0	0	0	5	0	0	0	275
cSH	268	884	342	929	926	1700	1700	1700	1308	1700	1700	1700
Volume to Capacity	0.66	0.03	0.01	0.19	0.03	0.07	0.07	0.00	0.14	0.11	0.11	0.16
Queue Length 95th (ft)	105	2	1	17	3	0	0	0	12	0	0	0
Control Delay (s)	41.0	12.1	15.7	10.2	9.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0
Lane LOS	E	B	C	B	A				A			
Approach Delay (s)	37.4		10.4		1.0				1.8			
Approach LOS	E		B									

Intersection Summary					
Average Delay	7.4				
Intersection Capacity Utilization	41.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	57	63	14	21	85	21	109	21	142	178	119
Future Volume (Veh/h)	85	57	63	14	21	85	21	109	21	142	178	119
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	92	62	68	15	23	92	23	118	23	154	193	129
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			4			4						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	664	688	96	634	794	59	322			141		
vC1, stage 1 conf vol	501	501		164	164							
vC2, stage 2 conf vol	162	187		470	630							
vCu, unblocked vol	664	688	96	634	794	59	322			141		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	86	93	96	94	91	98			89		
cM capacity (veh/h)	413	441	941	358	384	994	1235			1440		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	92	130	15	115	23	59	59	23	154	96	96	129
Volume Left	92	0	15	0	23	0	0	0	154	0	0	0
Volume Right	0	68	0	92	0	0	0	23	0	0	0	129
cSH	413	924	358	1243	1235	1700	1700	1700	1440	1700	1700	1700
Volume to Capacity	0.22	0.14	0.04	0.09	0.02	0.03	0.03	0.01	0.11	0.06	0.06	0.08
Queue Length 95th (ft)	21	12	3	8	1	0	0	0	9	0	0	0
Control Delay (s)	16.2	11.7	15.5	10.2	8.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0
Lane LOS	C	B	C	B	A				A			
Approach Delay (s)	13.6		10.8		1.1				2.5			
Approach LOS	B		B									

Intersection Summary					
Average Delay	5.8				
Intersection Capacity Utilization	32.6%	ICU Level of Service		A	
Analysis Period (min)	15				